

MASSACHUSETTS
HIGHWAY COMMISSION

1903

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TENTH ANNUAL REPORT

OF THE

MASSACHUSETTS

HIGHWAY COMMISSION.

JANUARY, 1903.



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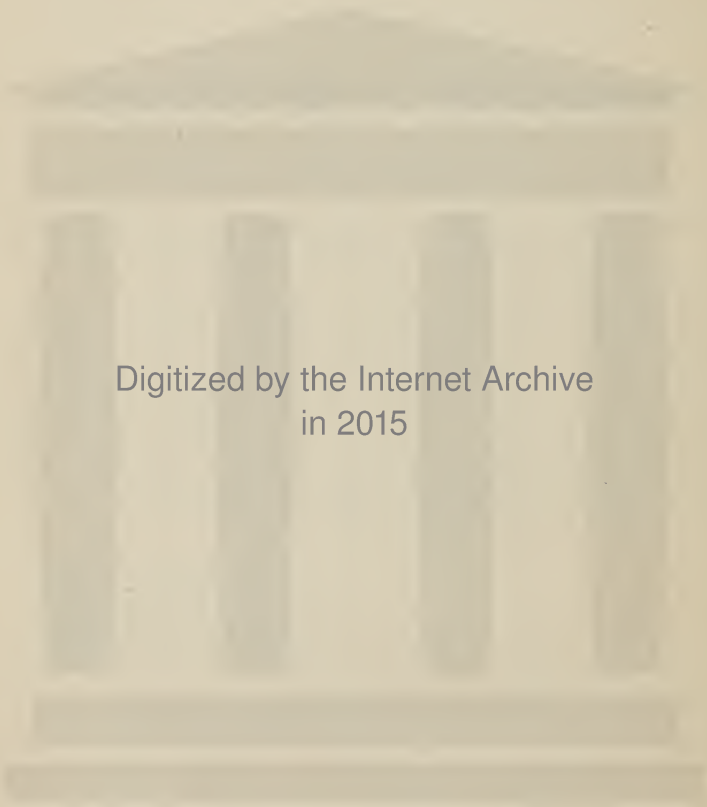
Commonwealth of Massachusetts.

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.

The undersigned commissioners, appointed under the provisions of chapter 476 of the Acts of 1893, entitled "An Act to provide for the appointment of a Highway Commission to improve the public roads, and to define its powers and duties," and under the provisions of chapter 474 of the Acts of 1900, entitled "An Act relative to the Massachusetts Highway Commission," herewith submit their tenth annual report.

W. E. McCLINTOCK.
HAROLD PARKER.
JOHN H. MANNING.

BOSTON, MASS., Jan. 1, 1903.



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ANNUAL REPORT

OF THE

MASSACHUSETTS HIGHWAY COMMISSION.

In accordance with the provisions of the act of April 10, 1901, appropriating for the construction and maintenance of State highways, \$100,000 became available for the use of the commission on Jan. 1, 1902. On April 1, 1902, the sum of \$500,000 was appropriated by the Legislature for the same purpose, and with the condition that \$100,000 should not be available until Jan. 1, 1903. The commission, therefore, has had the sum of \$500,000 which could be used for work during the year. In addition to the \$100,000 held over from the appropriation of 1901, considerable sums allotted for expenditure during that year were actually disbursed during the year 1902, unavoidable delays having prevented the completion of several contracts.

Additional lay-outs were made during 1902, amounting to 281,498 feet (53.32 miles), bringing the grand total up to 2,275,141 feet (430.9 miles). The number of miles of road finished during the year was approximately 57, making a total of about 415 miles of completed State highway at the end of the year 1902. On most of the remaining 16 miles laid out but not completed the work is in various stages of progress, although in a few instances no work will be done under the contracts before the coming spring.

Since the passage of the "small town act," in 1900, 39 miles of road in the "small towns" have been improved.

MEETINGS OF THE COMMISSION.

The commission has held 65 meetings at its office in Boston during the past year, besides many others at different points in the State. The regular county hearings provided for in the statutes have generally been well attended.

From the testimony of the selectmen the commission is much pleased to report that the macadam roads built by the towns since 1894, and independent of the State roads, measure in the aggregate about 560 miles.

The method adopted two years ago, of dividing the State into three divisions, is still continued. Working under this system, the commissioners are becoming thoroughly acquainted with the existing conditions in all parts of the Commonwealth, and can better understand the arguments presented by representatives of the different municipalities as to the merits of any particular road.

Much time has been devoted to the study of town roads, and advising with the local authorities as to materials, methods and cost.

By far the larger part of this work in each division can be done by one commissioner. In doubtful cases the whole Board acts, and views are taken when necessary.

In carrying out this part of the work, examining State roads and investigating petitions, the Board during the year has travelled over about 1,500 miles of road, in addition to the individual work in each division. These trips have been taken during all seasons of the year, many of them in the spring, when the frost was coming out and the roads were in their worst condition. The information thus obtained is of great value to the commission. In the course of this work visits have been made by different members of the commission to 288 cities and towns. Two or more visits have been made to more than one-half of these places.

CONTRACTS.

All work done by the commission must be done by contract, either with the town or city authorities, or, after due advertisement, with private contractors.

During the year 87 contracts were entered into, of which 27 were with town or city authorities and 60 with private individuals or corporations.

Little that is new can be said about this part of the work. With the increase of experience of both engineers and contractors, better work is being done, and with less friction. The bids have been fairly low, but in some instances there has

seemed to be a misunderstanding as to the requirements of the commissioners. Especial study of these cases has been made, with reference to clearing up the doubtful points; and it can safely be stated that, on the whole, the work has been prosecuted honestly and with reasonable diligence. It has been necessary to enforce the provisions of the "liquidated damages" clause in some of the contracts. The cost of engineering is necessarily large in this kind of work. Ample time is intended to be given in all contracts to complete the work. If the work drags, and the services of the engineer are required for a longer time than was contemplated, the contractor is called upon to pay the extra cost, unless the cause of the delay is beyond his control.

The surveys have been more carefully worked up, drainage and other details more thoroughly studied, the specifications corrected to render them clearer, and, in fact, everything possible has been done to direct the contractor wishing to bid, so that he may make his figures intelligently.

About the usual number of towns have taken contracts to build State roads, and but few cases of dissatisfaction have arisen under these contracts. The commissioners still believe this feature of the work to be of great value to the towns, as it gives the experience needed in the proper prosecution of their own road building.

PETITIONS.

The total number of petitions for the location and construction of State highways up to the date of this report is 604. Forty-three new petitions were received during the year 1902. These petitions cover 1,566 miles of road, and they are from 281 towns and 25 cities. The petitions received during the past year cover 97 miles of road not previously petitioned for.

STREET RAILWAYS.

Adjusting roadways and street railways to give the maximum good with the minimum cost has required much study and many conferences between the commission and officers of the different railway companies. There appears to be a growing inclination on the part of the street railway officials to do better work, and the friction is no more than should be expected to

exist between two interests so divergent and yet so closely allied to each other.

There are some few points that are difficult to adjust, but with a willingness to compromise they have been satisfactorily settled, and no apparent reason exists for a further change in the law at the present time.

There are at the present time street railways operating on State roads in 110 different cities and towns. In 4 of these municipalities there are 2 different companies. The length of street railway tracks in the State on Sept. 30, 1902, was 2,465.6 miles.

Generally, the work of the street railway companies has been very satisfactory. The lines and grades of the tracks are more carefully established, and in many instances these have been determined on roads not taken by the State, after consultation with the commission. While the first cost to the street railway companies is increased by this method, it is unquestionably more economical in the end, as it prevents costly future movements of the tracks.

Six petitions from street railway companies have been received for grading in advance of the taking by the State, as provided for by section 38, chapter 112 of the Revised Laws. Two of these petitions have been granted by the commission, part of the cost to be borne by the Commonwealth. As a result of this joint action, 2.63 miles of road in Cheshire and Amesbury have been graded and gravelled, and they will require but little work in the way of repairs for some years.

Several of the street railway companies have done the grading, and will wait for payment until the commission lays out the roads. On the whole, this is a very acceptable law, and much good is expected to result from it.

Section 45, chapter 112 of the Revised Laws, reads as follows: "If, upon the trial of an action against a city, town, railroad corporation or bridge corporation, the plaintiff recovers damages for an injury to his person or property which was caused by reason of a defect in a street, highway or bridge which is occupied by the tracks of a street railway company, and the street railway company is liable for such damages and has had reasonable notice to defend the action, the city, town, railroad corporation or bridge corporation may recover the

damages, and all the costs of both plaintiff and defendant in the action from the street railway company."

In an opinion of the Attorney-General, given to the commission, it would appear that the Commonwealth may be required to defend a suit for damages for injuries to a person travelling in a street railway car. The opinion further says: "If in such a case the Commonwealth were obliged to pay damages, there is no statutory provision giving a remedy over against the street railway company to the Commonwealth, as is provided in the case of cities, towns, steam railroads or bridge corporations."

The commission recommends the passage of an act to remedy this difficulty.

Chapter 399 of the Acts of 1902 places the approval of street railway locations in the hands of the railroad commissioners. The highway and railroad commissioners are in perfect accord on this subject, and it is reasonable to expect that many of the inconsistencies of the old system will now be done away with.

COUNTY ASSESSMENTS.

In accordance with the provisions of the statutes, the several counties in which State roads are built are required to repay to the State one quarter of the amount expended during the year. The time of this repayment may, if desired, extend over six years from the date of the assessment; but in several instances, including some of those in which the amount of the assessment is greatest, the counties have preferred to pay the entire sum due at the end of each year. The amount assessed upon the counties during the year 1902 was \$126,689.39.

ESTIMATES FOR 1903.

For the year 1903 the commission recommends an appropriation of \$550,000, with the condition, as heretofore, that \$100,000 should be available only after Jan. 1, 1904. This sum is believed to be necessary and sufficient for the proper extension of the great system of State highways, of which already more than 415 miles have been constructed. The commission is of the opinion that the sum recommended can be expended with greater efficiency and economy than either a larger or a smaller amount; and it also believes that an appropriation of this sum

for each year, for at least two years in advance, would greatly facilitate all engineering and construction work, and materially reduce the cost of the same.

It will be noted that the commission asks for an increase of \$50,000 in the appropriation. Under the present system, which requires the Commonwealth to maintain State roads, it is self-evident that the amount required for this purpose will increase with the mileage, and that the average cost per mile may be somewhat further increased by the resurfacing of roads that have worn thin. The average cost per mile per year for maintenance, up to the present time, is a little over \$100. On this basis, between \$45,000 and \$50,000 will be used during the coming year.

LAND AND GRADE DAMAGES.

There have been but few claims made for damage caused by taking land or grading. Where these claims have been adjusted, settlements have been made by the commission on fairly reasonable terms, excepting in one instance.

For outstanding claims against the Commonwealth, see Appendix D.

CONSTRUCTION.

The methods employed by the commission in building roads have been thoroughly described in previous reports. Every possible effort has been made to utilize the material in the old road, if it was of proper quality, and provided a change of grade did not require its removal. The surfacing has been fitted to the shoulders as closely as is consistent with good grades, and the amount of material moved has been reduced to the minimum.

The rolling of the sub-grade and each course of stone is strictly adhered to.

An observation of the roads built of unscreened broken stone shows that after a few years' wear the smaller stones are ground up, leaving the larger stones projecting above the surface. Rarely has this occurred on roads built of screened stone.

The continued experiment of using native rock screenings as a binder, even on trap rock roads, is a success. By the use of these screenings a considerable saving in cost is effected on roads built of native rock in the lower, and trap rock in the

upper, course. Under the old method, these screenings, constituting from 13 to 20 per cent. of the output of the crusher, were a waste product.

The standard width of the roadway still remains 15 feet. On some less travelled ways the width is reduced to 12 feet. Ten feet has proved too narrow, particularly on ways built on sand, as the shearing effects of the wheels reduces the width of the macadam beyond the safety limit.

Some saving in the amount of broken stone used has been made by reducing the depth on the edges. The depth on the edges now varies from 5 inches over poor soil to about $2\frac{1}{2}$ inches on safer soil.

No telford foundations have been laid for two years past. Much of this class of construction has been done by the commission, and every contingency was supposed to have been carefully considered. Notwithstanding the careful attention to details, the results from the use of telford have been far from satisfactory. In a few cases the large stones have come to the surface in a manner which would seem to indicate a movement due to frost action. In other cases, where a fairly soft native stone was used for surfacing, the upper courses were worn away so as to leave the large stones exposed. There are few, if any, cases where equally good results cannot be obtained by the use of sand, gravel or small stones in place of telford, and at a less cost.

During the past year the commission has experimented quite extensively with the substitution of re-enforced concrete for steel I-beams and masonry in the building of culverts and short bridges. There has always been considerable difficulty in obtaining good rubble masonry. No amount of care in preparing specifications has removed these difficulties. The general trouble has been to get just what the commission called for. Generally, the inspection has been so close as to compel good workmanship, and it has been claimed by the contractors that they were invariably put to a loss. As a result, the prices were gradually advanced until they seemed to the commission to be extravagant.

By using the re-enforced concrete a saving of from 25 to 40 per cent. has been effected, while the resulting structure is more pleasing to look at, as well as more enduring. This type of

construction can be carried on with the minimum of trouble resulting from unskilled labor, and the annoying delays due to the non-delivery of steel beams is entirely done away with.

In the early work of the commission structures over stream openings under 16 feet in width were designated as culverts, and were built as a part of the road. Structures of greater length were called bridges. If they consisted of but one span, the abutments were built by the commission and the superstructure by the municipality. This rule holds good in the main at the present time, although occasional exceptions are made. The commission has generally on State roads taken the bridge constructed by the municipality as a part of the highway, and maintained it.

One re-enforced concrete beam bridge of 18 feet span was built in Sudbury. One re-enforced concrete arch bridge of 30 feet span is being built in Essex.

Steel bridges with arches and solid floor construction were built in Barre, 40 feet span; Bedford, 17.5 feet span; Brookfield, 11.5 feet span; Cheshire, 26.67 feet span; Colrain, 21.67 feet span; Hinsdale, 13.67 feet span; Richmond, 11.25 feet span; Somerset, 11.67 feet span; Taunton, 21.5 feet span; Templeton, 13.5 feet span.

Steel structures with plank floors were built in Dennis, 40 feet span; and in Palmer-Monson, 75 feet span.

MAINTENANCE.

The law of 1900 requires a payment to the Commonwealth by each municipality in which State roads are built of a sum not exceeding \$50 for each mile of State road in the respective municipalities. The total cost of repairs was \$59,943.29 in 1902. There will be paid back into the State treasury the sum of \$17,221.39, or about 28.75 per cent. of the total cost.

It was evidently the intention of the Legislature, when considering this act, that the money so returned to the Commonwealth was to be credited to the appropriation, to be again used by the commission. By a ruling of the Auditor, this cannot legally be done. It can only be applied to reduce the loan, unless it shall be specifically appropriated. The commissioners recommend that for the coming year, in addition to the regular appropriation, all money paid to the Commonwealth on account of repairs be also appropriated for State highway uses.

The same general scheme of repairs, as reported for previous years, has been continued during the present year.

So far as possible, the commission is contracting for the repair of long stretches of State road. Seven contracts of this character are now in operation, covering 57.56 miles. These contracts require the contractor to furnish a horse, cart and tools, and to devote as much of his time as is necessary to make all general repairs. The commission furnishes the materials. The average contract cost per mile for labor is \$58.91. The total average cost per mile of contract repairs, including materials, is \$88.25.

Parts of the roads in Leicester, Fitchburg, Beverly, Shrewsbury, Lowell and Lee were thoroughly resurfaced and repaired during the current year. The length thus repaired was 3.44 miles. As these are the only roads that have been resurfaced since the commission began its work, it may be interesting to analyze the cost. It must be borne in mind that these are not typical State roads, but ways approaching large cities, and subject to much wear by large volumes of heavy traffic.

The Leicester road repaired is 3,150 feet long and 24 feet wide, and covers an area of 8,400 square yards. The repairs consisted of resurfacing alone. There were 659.62 tons of local stone used for the bottom course and 835.71 tons of trap rock used for the top course, — a total of 1,495.33 tons. The cost of repairs was 30 cents per square yard, or 5.17 cents per square yard per year. The broken stone cost \$1.69 per ton in place, and the loss of stone was at the rate of .03 of a short ton per square yard per year. This is one of the main streets leading into the city of Worcester, and it has a large volume of heavy traffic.

The West Fitchburg road repaired is 2,200 feet long and 15 feet wide, and covers an area of 3,600 square yards. The repairs consisted of resurfacing. There were 582.15 tons of broken stone used. The cost of repairs was 36 cents per square yard, or 5.15 cents per square yard per year. The broken stone cost \$2.23 per ton in place. The loss of stone was at the rate of .023 of a short ton per square yard per year. This is one of the main roads leading into the city of Fitchburg, and is subjected to heavy traffic.

The Beverly road repaired is 2,150 feet long and 18 feet wide, and covers an area of 4,302 square yards. The repairs

consisted of resurfacing alone. There were 716.38 tons of broken trap rock used. The cost of repairs was 30 cents per square yard, or 5.2 cents per square yard per year. The broken stone cost \$1.80 per ton in place. The loss of stone was at the rate of .03 of a short ton per square yard per year. This is one of the main roads leading into Beverly and Salem, and it is subjected to a large volume of heavy traffic.

The repairs on the Shrewsbury, Lowell and Lee roads consisted not only of resurfacing, but of building a system of under-drains and shoulders, and generally strengthening the roads by increasing the thickness of the broken stone. A large part of this work might properly have been done when the roads were built; but it was thought not to be needed at that time, and therefore was not done. A part of the cost of the present work on these roads should be chargeable to construction and part to repairs due to legitimate wear.

This is in conformity with the general policy of the commission to experiment on certain kinds of soil, giving preference to cheaper first cost, and later to strengthen the weak parts when use develops the necessity of such strengthening.

A study of five typical State roads has been made, with reference to determining the amount of broken stone used in ordinary repairs, or such repairs as are required to maintain the surface of the roadway in good condition at all times until resurfacing is needed. The results are given in pounds per year for each square yard of macadam.

TABLE SHOWING QUANTITY OF BROKEN STONE USED IN MAKING ORDINARY REPAIRS.

TOWNS.	Length (Miles).	Number of Tons of Stone.	Number of Pounds Loss per Square Yard per Year.	Material.
Goshen, ...	1.905	100.35	1.80	Soft native rock.
Lexington, Lincoln, Concord.	6.973	149.12	.98	Good native stone.
West Newbury, . .	2.222	107.55	2.00	Soft native rock.
Yarmouth, Dennis, Brewster.	17.008	19.00	.06	Good native stone.
North Adams, Williamstown.	3.610	219.58	2.20	Trap rock.

The traffic on the Goshen road is light country travel, the grades are long, and all repairs are made with stone.

The Lexington, Lincoln and Concord road has a fair amount of traffic over it. Part of the road is built of fairly good native stone and part of trap rock.

The West Newbury road has a fairly large traffic, the stone is soft, and there are some 6 per cent. grades.

The Yarmouth-Dennis-Brewster road is at all times kept covered with sand, and it is apparently in as good condition as when first built.

The North Adams-Williamstown road has a fairly heavy traffic, and is in part built over clayey soil. There has been greater wear due to the weather conditions than on any of the other roads referred to.

The average quantity of broken stone per square yard per year on the entire 31.718 miles is .92 pounds. The foregoing analysis clearly shows the small quantity of stone required to maintain a broken-stone road in a perfectly good condition.

“SMALL TOWN” WORK.

Under the provisions of chapter 432 of the Acts of 1900 and of chapter 433 of the Acts of 1901, there have been filed with the commission 196 petitions, from 97 towns; and 123 allotments have been made, in 75 towns.

Another year's trial of the “small town” act has confirmed the commission in its belief in the wisdom of the law. In the report of last year the work of the commission up to the time of making out that report was stated, but the practical advantage to the small and outlying towns has been even greater than was anticipated. The actual number of miles of town roads improved under the direction of the commission and with the financial aid contributed by many of the towns is 39; but, in addition to this material benefit to specific highways, the commission and its representatives have been enabled to instruct the country road builders in better and more economic methods of construction and maintenance than they had in most cases been in the habit of using. It is gratifying to the Board to realize that in every town where the State money has been spent the officials of the towns have not only worked heartily in conjunction with the commission, but they have readily recognized the value of advice and instruction offered

by the State's representatives. The commission is still further convinced that this work will rapidly bring about improvement in the general condition of town roads throughout the State.

It is a matter for consideration whether, in certain cases, it might not well be left to the judgment of the commission to exceed in any one town the legal limit of 40 per cent. of that town's annual appropriation for roads. This might be done, for instance, in cases where an important road runs for a long distance through a small town, but which is used to a large extent by other communities. The money thus spent by the State could well be said to have been devoted to the general public.

Under the provision of the law making towns with a valuation of over \$1,000,000 contribute an equal amount with the State, the commission has received 10 petitions, and has allotted \$6,786.30 to the towns. This work is, of course, of greater magnitude in each instance than is the case in the poorer towns; and so far the money allotted has been spent on roads that will undoubtedly become a part of the State highway system.

For a detailed statement, showing the amounts of the several allotments, the lengths of roads improved and the nature of the work done, see Appendix H.

STEAM ROAD ROLLERS AND STONE-CRUSHING PLANTS.

The commission has under its control 17 steam rollers. These rollers have been generally busy during the year, either on repairs of State highways or on town roads.

The total amount paid out by the commission for repairs made to the rollers and for moving them from one place to another during the year is \$828.18. The rollers have been used during the year 1,077 days, in 33 different towns, on town roads; 538 days, in 22 towns, on State highway construction; and 320 days, in 24 towns, on State highway repairs; or a total of 1,935 days in 89 different towns. Each of the 17 rollers worked on an average of about 114 days during the year.

The commission has no means of knowing how much money has been paid out by the different towns for the repair of these rollers. The amount above given simply includes the general supervision, movement and care of the rollers.

The present arrangement is an exceedingly awkward one, inasmuch as it is practically impossible to cause the repairs at all times to be made by the proper persons. It would seem a wise measure if the commission were given authority to make all repairs upon machinery of this kind, and to charge the towns not only for the maintenance of the rollers, but also an amount which would replace the rollers when they are worn out. Based upon the number of days the rollers have been used during the year, the towns would have to pay the small amount of \$1.08 per day. The commission recommends the establishment of a fund for the replacing of such machinery when it is worn out. The towns using the rollers should be charged a sufficient amount to bring about this result. The towns would thus receive the benefit of heavy road-building machinery, and the State would be put to no further cost for its maintenance. Under the present law, this cannot be done, for the reason that there is no way whereby the commission can receive any money paid for such purposes.

The old method of repairing the rollers proved so unsatisfactory that a competent man has been employed to have a general oversight over them. His duties are to make all repairs, load and unload when transit by rail is required, and to instruct local engineers in the management and operation of the machines. The efficiency of the rollers is much greater, and the cost of maintenance is less, under this arrangement.

During the year the commission purchased two portable stone-crushing plants, at a cost of \$3,200. These have been used in small towns, where the appropriation was too small to permit the purchase of machines or to economically contract for building macadam roads. The towns are supposed to pay all the costs of repairs, moving and operating.

The work done has been very satisfactory. The commission believes that in many cases the towns will be able, by the use of these crushers, to build first-class macadam roads at a cost but slightly above the cost of the inferior roads of dirt or gravel.

Much improvement in town roads is expected to result from the use of the State rollers and crushers.

SURVEYS AND ENGINEERING OFFICE WORK.

During the year surveys for preliminary studies, estimates and lay-outs were made in 60 towns, a total length of 71 miles; and grade stakes for construction work were set in 99 towns, representing a length of 74 miles, part of this being for work unfinished in 1901.

Final surveys were made in 92 towns, the total length of such surveys being 54 miles. Surveys for "small town" work were made in 14 towns, a total length of 13 miles; and about 7 miles of miscellaneous surveys were made for roads to be constructed by towns.

Plans, profiles and cross-sections have been plotted of surveys in 60 towns, representing a length of 71 miles. The plans and profiles were plotted on a horizontal scale of 40 feet to an inch, the vertical scale being 8 feet to an inch. The cross-sections were plotted on a natural scale of 4 feet to an inch.

Lay-out plans have been made of roads in 81 towns; plans to accompany decrees for street railway locations on State highways and for provisional locations have been made in 34 towns; plans and profiles for work under the "small town" act, in 13 towns; and miscellaneous plans, for 7 miles of road, have also been made.

Preliminary estimates in 106 towns, representing 79 miles, have been made; and also final estimates in 74 towns, representing 46 miles.

Bridge plans have been made for all the bridges built during the year, with the exception of two concrete-steel bridges, one at Essex and the other at Sudbury, and the superstructure of the truss bridge at Palmer-Monson. In addition to the bridges already built, several have been designed for construction in 1903.

ENGINEERS AND CLERKS.

The engineering work of the commission during the past year has been under the general direction of Mr. Austin B. Fletcher, secretary of the Board. No chief engineer has been employed. Under the present arrangement, much of the work that was formerly done by the chief engineer is now looked after by the different members of the commission. The results of the new method are entirely satisfactory.

Messrs. Andrew M. Lovis and Sidney A. Parsons, first and

second assistant engineers, respectively, have had charge of the surveying parties and of the office engineering work.

Messrs. William R. Farrington, John A. Johnston, Frank H. Joyner, Franklin C. Pillsbury and Warren B. Wheeler, division engineers, have had charge of construction work in the field.

The following men have been employed as resident engineers: Charles E. Adams, George W. Bagge (8 months), John L. Bradford (3 months), Lewis R. Brine, C. Leonard Brown, ($1\frac{3}{4}$ months), George R. Brown, Albert D. Dudley, Percival H. Everett, Arthur B. Farnham (6 months), William S. French (7 months), Lyman L. Gerry, Albert W. Gray, Howard C. Holden, Charles H. Howes, Stephen Litchfield, Jr., Arthur E. Lucy ($\frac{1}{2}$ month), Everett J. Nichols, Charles H. Norton, Sidney G. Packard, John K. Perkins ($3\frac{1}{2}$ months), Hiram D. Phillips, Carl A. Raymond (6 months), Stillman Shaw, Henry E. Warren, C. Alden Welton, David H. Winslow (3 months) and George R. Winslow.

The following men have been employed on survey work: chiefs of party: Emory N. Colburn, David W. Merrill (1 month), Harold R. Starbird and Fred M. Stuart. Transitmen: Daniel H. Dickinson, Myron B. Hoyt ($7\frac{3}{4}$ months), Nahum Maynard ($8\frac{3}{4}$ months) and George F. Whittemore ($3\frac{1}{2}$ months). Nathan Wilber, rated as transitman, has been employed on general office work 5 months. Rodmen: William G. Burns, Austin L. Cannon ($4\frac{1}{2}$ months) and Ralph E. Kimball ($2\frac{1}{2}$ months).

The following men have been employed as draughtsmen and computers: C. Ridgeley Brown, Frederick H. Cunningham, David M. Hudson (5 months), Arthur Larrabee, James H. Taylor and William N. Wade.

The following men, rated as rodmen, have been employed on general work in the office: Charles B. Hollis ($3\frac{1}{4}$ months), Arthur P. Rice ($8\frac{1}{4}$ months) and Warren H. Small (3 months).

The clerical force has remained unchanged during the year. John M. McCarthy has acted as assistant to the secretary, Mary A. Riley and Elting J. O'Hara as stenographers, Edward A. Austin as accountant, Alice M. Worthen as copyist and Fred Fair as office boy.

George E. Rayner has been employed as an inspector of the road-building machinery under the control of the commission.

EXPENDITURES.

The following is a summary of the expenditures of the Massachusetts Highway Commission from Dec. 1, 1901, to Nov. 30, 1902:—

CONSTRUCTION EXPENDITURES.

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Barnstable County.</i>			
Barnstable, ...	1901	\$1,608 84	
Barnstable, ...	1902	3,584 14	
Chatham, ...	1901	44 76	
Chatham, ...	1902	2,233 91	
Dennis, ...	1897	5 49	
Dennis, ...	1901	109 74	
Dennis, ...	1902	1,560 16	
Dennis (bridge and approaches), ...	1902	3,391 14	
Harwich, ...	1902	5,087 20	
Orleans, ...	1901	1,755 18	
Provincetown, ...	1901	269 80	
Sandwich, ...	1900	186 55	
Sandwich, ...	1902	1,662 40	
Truro (1901 contract), ...	1895	2,557 70	
			\$24,057 01
<i>Berkshire County.</i>			
Becket, ...	1902	\$3,493 80	
Cheshire, ...	1900	109 74	
Cheshire, ...	1901	2,751 75	
Cheshire, ...	1902	3,155 25	
Great Barrington, ...	1902	9 75	
Hinsdale, ...	1901	4,624 41	
Hinsdale, ...	1902	2,817 18	
Hinsdale (bridge), ...	1902	1,106 71	
Hancock, ...	1899	983 67	
North Adams, ...	1902	4,234 44	
Pittsfield, ...	1901	2,097 91	
Pittsfield, ...	1902	18 66	
Richmond, ...	1897	153 63	
Richmond, ...	1901	200 67	
Richmond, ...	1902	2,285 97	
Williamstown, ...	1898	186 22	
Windsor, ...	1902	2,084 59	
			30,314 35
<i>Bristol County.</i>			
Attleborough, ...	1901	\$1,231 78	
Dighton, ...	1902	4,909 83	
Freetown, ...	1902	2,408 52	
Mansfield, ...	1901	4,382 50	
Raynham, ...	1901-02	8,144 37	
Seekonk, ...	1900	64 03	
Seekonk, ...	1901	381 63	
Seekonk, ...	1902	3,797 70	
<i>Amounts carried forward,</i>		\$25,320 36	\$54,371 36

CONSTRUCTION EXPENDITURES — *Continued.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amounts brought forward,</i> . . .	. . .	\$25,320 36	\$54,371 36
Somerset, ...	1901-02	9,018 83	
Taunton, ...	1900	48 51	
Taunton, ...	1901	1,814 30	36,202 00
<i>Dukes County.</i>			
Edgartown, ...	1902	. . .	1,918 10
<i>Essex County.</i>			
Amesbury, ...	1901	\$1,026 31	
Andover, ...	1902	3,615 70	
Groveland, ...	1900-01	3,043 74	
Groveland, ...	1902	6,698 62	
Haverhill (1900 contract), . . .	1899	438 97	
Merrimac, ...	1901	910 00	
Methuen, ...	1901	109 74	
Methuen, ...	1902	4,556 44	
Newbury, ...	1900	8 24	
Newbury, ...	1901	6,403 10	
Newbury, ...	1902	4,728 99	
North Andover, ...	1902	5,966 38	
Rockport, ...	1902	3,647 14	
Salem, ...	1901	1,421 46	
Swampscott, ...	1900-01	565 67	
Wenham, ...	1901	70	43,141 20
<i>Franklin County.</i>			
Buckland, ...	1897	\$39 62	
Colrain, ...	1901	2,562 93	
Deerfield, ...	1901	2,063 27	
Deerfield, ...	1902	5,794 61	
Erving (1901 contract), ...	1900	925 12	
Greenfield, ...	1902	4,724 25	
Montague, ...	1901	315 20	
Northfield, ...	1901-02	9,709 34	
Orange, ...	1900-01	1,795 80	
Orange, ...	-	11 94	
Shelburne, ...	1895	22 23	
Whately, ...	1901	2,393 63	
Whately, ...	1902	3,845 54	34,203 48
<i>Hampden County.</i>			
Brimfield, ...	1901-02	\$3,676 82	
Chester, ...	1901	1,075 81	
Chester, ...	1902	4,091 02	
Chicopee, ...	1902	5 97	
Monson, ...	1901	62 06	
Monson (bridge), ...	1901	1,054 37	
Palmer (1st), ...	1901	109 74	
<i>Amounts carried forward,</i> . . .	. . .	\$10,075 79	\$169,836 14

CONSTRUCTION EXPENDITURES — *Continued.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amounts brought forward,</i>		\$10,075 79	\$169,836 14
Palmer (2d), ...	1901	282 71	
Palmer (bridge), ...	1901	4,803 22	
Wales, ...	1901	2,350 75	
Westfield, ...	1902	5,264 21	
Wilbraham (1st), ...	1901	109 74	
Wilbraham (2d), ...	1901	5,934 77	
			28,821 19
<i>Hampshire County.</i>			
Amherst, ...	1901	\$5,325 42	
Amherst (1902 contract), ...	1901	5,453 71	
Belchertown, ...	1901-02	6,269 51	
Granby, ...	1902	4,778 38	
Hadley, ...	1902	3,319 91	
Hatfield, ...	1901	4,994 32	
South Hadley, ...	—	13 17	
Ware, ...	—	8 78	
Williamsburg, ...	1901	502 65	
			30,665 85
<i>Middlesex County.</i>			
Acton (Great Road), ...	1901	\$109 74	
Acton (west), ...	1901	146 83	
Acton (Great Road), ...	1902	2,924 38	
Ashby, ...	1894	71 58	
Bedford, ...	1902	4,719 39	
Groton, ...	1901	5,874 35	
Groton, ...	1902	4,770 39	
Littleton (Great Road), ...	1902	4,979 36	
Littleton (Lowell Road), ...	1902	560 04	
Marlborough, ...	1901	3,565 95	
Marlborough, ...	1902	1,099 38	
Natick, ...	1901	53 78	
North Reading, ...	1901	109 74	
Reading, ...	1899	67 27	
Reading, ...	1902	16 46	
Stoneham, ...	1901	109 74	
Sudbury, ...	1901	173 16	
Sudbury, ...	1901-02	12,257 96	
Tewksbury, ...	1901	2,663 35	
Tewksbury, ...	1902	6,367 44	
Townsend, ...	1901	55 88	
Townsend, ...	1902	2,767 92	
Westford, ...	1902	4,352 57	
Woburn, ...	1901	2,751 44	
Woburn, ...	1902	3,300 74	
			63,868 74
<i>Norfolk County.</i>			
Bellingham, ...	1902	\$1,400 47	
Braintree, ...	1902	7,334 10	
<i>Amounts carried forward,</i>		\$8,734 57	\$293,191 92

CONSTRUCTION EXPENDITURES — *Continued.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amounts brought forward, . . .</i>		\$8,734 57	\$293,191 92
Cohasset, ...	1902	2,378 86	
Foxborough, ...	1901	1,714 18	
Foxborough, ...	1902	2,756 83	
Holbrook, ...	1902	4,342 71	
Milton, ...	1900	352 48	
Needham, ...	1901	6,016 67	
Quincy, ...	1902	5,327 73	
Randolph, ...	1902	52 07	
Stoughton, ...	1902	4,774 92	
Walpole, ...	1900	203 93	
Wellesley, ...	1901	55 97	
Wrentham, ...	1902	3,042 88	
			39,753 80
<i>Nantucket County.</i>			
Nantucket, ...	1901	. . .	4,258 26
<i>Plymouth County.</i>			
Abington, ...	1901	\$157 53	
Lakeville, ...	1901	4,722 43	
Lakeville, ...	1902	5,196 86	
Marion (1st), ...	1901	334 12	
Marion (2d), ...	1901	9 60	
Marion, ...	1902	853 97	
Marshfield, ...	1901	1,163 49	
Marshfield, ...	1902	16 74	
Mattapoisett, ...	1901	823 71	
Middleborough, ...	1902	66 15	
Plymouth, ...	1902	2,917 05	
Rockland, ...	1902	11 25	
Wareham (1st), ...	1901	835 32	
Wareham (2d), ...	1901	1,892 87	
West Bridgewater, ...	1901	1,872 16	
West Bridgewater, ...	1902	3,784 15	
			24,657 40
<i>Suffolk County.</i>			
Chelsea, ...	1901	. . .	13,607 91
<i>Worcester County.</i>			
Athol, ...	1895	\$1,461 37	
Athol, ...	1902	176 90	
Auburn, ...	1901	3,327 01	
Barre, ...	1900	33 59	
Barre, ...	1902	5,526 01	
Barre (bridge), ...	1902	2,809 48	
Blackstone, ...	1900	109 63	
Blackstone, ...	1902	601 35	
Brookfield, ...	1902	5,831 81	
Charlton, ...	1901-02	16,940 26	
<i>Amounts carried forward, . . .</i>		\$36,817 41	\$375,469 29

CONSTRUCTION EXPENDITURES — *Concluded.*

TOWN OR CITY.	Year of Lay-out.	Amount.	Totals.
<i>Amounts brought forward,</i>		\$36,817 41	\$375,469 29
Douglas, ...	1902	15 36	
Dudley, ...	1902	3,909 22	
Fitchburg, ...	1901	1,337 38	
Gardner, ...	1900	384 10	
Gardner, ...	1901	472 73	
Hardwick, ...	1901	30 26	
Harvard, ...	1900	2,281 16	
Lancaster, ...	1902	5,826 72	
Leominster, ...	1901	4,658 70	
Leominster, ...	1902	4,907 44	
Lunenburg, ...	1901	1,519 70	
Millbury, ...	1900	109 74	
Millbury, ...	1902	4,331 08	
Northborough, ...	1902	6,124 10	
Paxton, ...	1898	75 68	
Paxton, ...	1902	4,186 18	
Princeton, ...	1902	55 47	
Shrewsbury, ...	1900	90 65	
Southbridge, ...	1902	3,909 27	
Sutton, ...	1899	175 58	
Sutton, ...	1902	1,071 47	
Templeton, ...	1901	2,571 65	
Templeton, ...	1902	4,379 08	
Uxbridge, ...	1901	148 98	
Warren, ...	1901	769 88	
West Brookfield, ...	1901	1,099 10	
Westminster, ...	—	15 28	
			91,273 37
Total, ...			\$466,742 66

REPAIR AND MAINTENANCE EXPENDITURES.

TOWN OR CITY.	Amount.	Totals.
<i>Barnstable County.</i>		
Barnstable, ...	\$222 62	
Bourne, ...	41 45	
Brewster, ...	654 68	
Chatham, ...	119 45	
Dennis, ...	465 85	
Harwich, ...	306 73	
Orleans, ...	66 04	
Provincetown, ...	46 74	
<i>Amount carried forward,</i>	\$1,923 56	

REPAIR AND MAINTENANCE EXPENDITURES — *Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amount brought forward,</i>	\$1,923 56	
Sandwich, ...	176 20	
Truro, ...	126 80	
Yarmouth (north), ...	395 70	
Yarmouth (south), ...	304 25	\$2,926 51
<i>Berkshire County.</i>		
Adams, ...	\$69 95	
Becket, ...	1 13	
Cheshire, ...	214 86	
Dalton, ...	324 34	
Great Barrington, ...	697 11	
Hancock, ...	707 36	
Hinsdale, ...	2 76	
Lee, ...	3,626 15	
Lenox, ...	402 24	
North Adams, ...	1,083 11	
Pittsfield, ...	362 61	
Richmond, ...	93 58	
Williamstown, ...	174 06	
Windsor, ...	23 88	7,783 14
<i>Bristol County.</i>		
Acushnet, ...	\$73 34	
Attleborough, ...	241 62	
Dartmouth, ...	54 20	
Dighton, ...	31 28	
Easton, ...	30 24	
Fairhaven, ...	45 81	
Mansfield, ...	17 92	
North Attleborough, ...	387 38	
Raynham, ...	14 92	
Rehoboth, ...	126 60	
Seekonk, ...	35 96	
Somerset, ...	158 49	
Taunton, ...	183 93	
Westport, ...	254 64	1,656 33
<i>Dukes County.</i>		
Cottage City, ...	\$170 67	
Edgartown, ...	94 21	
Tisbury, ...	106 36	
West Tisbury, ...	146 06	517 30
<i>Essex County.</i>		
Amesbury, ...	\$176 88	
Andover, ...	468 84	
Beverly, ...	271 72	
Gloucester, ...	111 33	
<i>Amounts carried forward,</i>	\$1,028 77	\$12,883 28

REPAIR AND MAINTENANCE EXPENDITURES — *Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amounts brought forward, ...</i>	\$1,028 77	\$12,883 28
Groveland, ...	30 02	
Hamilton, ...	209 98	
Haverhill, ...	5,745 87	
Lawrence, ...	30 23	
Merrimac, ...	162 07	
Methuen, ...	265 77	
Newbury, ...	79 83	
Newburyport, ...	176 98	
North Andover, ...	130 87	
Salem, ...	53	
Saugus, ...	566 99	
Swampscott, ...	342 67	
Wenham, ...	40 84	
West Newbury, ...	488 45	
		9,299 87
<i>Franklin County.</i>		
Ashfield, ...	\$338 63	
Buckland, ...	676 68	
Charlemont, ...	398 78	
Colrain, ...	190 20	
Deerfield, ...	394 59	
Erving, ...	290 46	
Greenfield, ...	154 17	
Montague, ...	246 16	
Orange, ...	299 11	
Shelburne, ...	681 56	
Sunderland, ...	77	
Whately, ...	27 52	
		3,698 63
<i>Hampden County.</i>		
Brimfield, ...	\$121 88	
Chester, ...	122 45	
Chicopee, ...	1,306 43	
Monson, ...	53 83	
Palmer, ...	153 03	
Russell, ...	559 74	
Westfield, ...	508 44	
West Springfield, ...	88 18	
Wilbraham, ...	145 48	
		3,059 46
<i>Hampshire County.</i>		
Amherst, ...	\$3 88	
Belchertown, ...	183 48	
Easthampton, ...	357 78	
Goshen, ...	433 14	
Granby, ...	83 69	
Hadley, ...	404 58	
Hatfield, ...	7 59	
Huntington, ...	138 06	
<i>Amounts carried forward, ...</i>	\$1,612 20	\$28,941 24

REPAIR AND MAINTENANCE EXPENDITURES — *Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amounts brought forward, ...</i>	\$1,612 20	\$28,941 24
Northampton, ...	264 62	
South Hadley, ...	636 94	
Ware, ...	104 54	
Williamsburg, ...	334 66	
		2,952 96
<i>Middlesex County.</i>		
Acton, ...	\$282 15	
Ashby, ...	282 75	
Bedford, ...	19 06	
Boxborough, ...	43 14	
Chelmsford, ...	168 25	
Concord, ...	211 20	
Groton, ...	5 60	
Lexington, ...	280 24	
Lincoln, ...	158 26	
Lowell (north), ...	55 09	
Lowell (south), ...	4,343 82	
Marlborough, ...	62 40	
Natick, ...	35 95	
Newton, ...	4 19	
North Reading, ...	93 19	
Reading, ...	158 88	
Stoneham, ...	94 54	
Sudbury, ...	206 96	
Tewksbury, ...	83 73	
Townsend, ...	191 98	
Tyngsborough, ...	90 71	
Watertown, ...	205 24	
Wayland, ...	96 79	
Weston, ...	193 74	
Winchester, ...	292 73	
Woburn, ...	144 96	
		7,805 55
<i>Nantucket County.</i>		
Nantucket, ...		286 05
<i>Norfolk County.</i>		
Bellingham, ...	\$1 54	
Braintree, ...	1 87	
Cohasset, ...	62 46	
Foxborough, ...	3 97	
Holbrook, ...	52 76	
Milton, ...	251 91	
Norfolk, ...	60 55	
Norwood, ...	108 46	
Quincy, ...	2 01	
Stoughton, ...	16 96	
Walpole, ...	306 10	
Wellesley, ...	26 89	
<i>Amounts carried forward, ...</i>	\$895 48	\$39,985 80

REPAIR AND MAINTENANCE EXPENDITURES—*Continued.*

TOWN OR CITY.	Amount.	Totals.
<i>Amounts brought forward, ...</i>	\$895 48	\$39,985 80
Westwood, ...	186 08	
Weymouth, ...	95 89	
Wrentham, ...	138 51	1,315 96
<i>Plymouth County.</i>		
Abington, ...	\$61 25	
Brockton, ...	212 08	
Duxbury, ...	149 49	
Hingham, ...	143 68	
Lakeville, ...	8 04	
Marion, ...	180 27	
Marshfield, ...	97 00	
Mattapoisett, ...	100 01	
Middleborough, ...	56 63	
Plymouth, ...	380 30	
Scituate, ...	101 33	
Wareham, ...	113 17	
West Bridgewater, ...	88 35	
Whitman, ...	134 48	1,826 08
<i>Suffolk County.</i>		
Revere (east), ...	\$110 75	
Revere (west), ...	272 01	382 76
<i>Worcester County.</i>		
Athol, ...	\$428 87	
Auburn, ...	238 73	
Barre, ...	136 05	
Blackstone, ...	146 88	
Brookfield, ...	56 31	
Charlton, ...	4 46	
Fitchburg, ...	1,848 40	
Gardner, ...	385 41	
Grafton, ...	36 55	
Hardwick, ...	46 91	
Harvard, ...	28 94	
Holden, ...	189 33	
Lancaster, ...	5 07	
Leicester, ...	3,175 04	
Leominster, ...	10 24	
Lunenburg, ...	485 30	
Millbury, ...	8 74	
New Braintree, ...	4 34	
Northborough, ...	63 80	
Paxton, ...	2,779 53	
Phillipston, ...	112 24	
Princeton, ...	25 06	
Shrewsbury, ...	4,022 93	
Spencer, ...	45 39	
Sterling, ...	85 74	
<i>Amounts carried forward, ...</i>	\$14,370 26	\$43,510 60

REPAIR AND MAINTENANCE EXPENDITURES — *Concluded.*

TOWN OR CITY.	Amount.	Totals.
<i>Amounts brought forward,</i>	\$14,370 26	\$43,510 60
Sturbridge, ...	56 68	
Sutton, ...	33 65	
Templeton, ...	104 00	
Uxbridge, ...	145 09	
Warren, ...	298 07	
Westborough, ...	13 16	
West Boylston, ...	22 81	
West Brookfield, ...	70 24	
Westminster, ...	420 41	
Worcester, ...	898 32	
		16,432 69
Total, ...		\$59,943 29

EXPENDITURES UNDER "SMALL TOWN" ACTS.

[Chapter 47, Revised Laws.]

Ashburnham, ...	\$1,004 00
Avon, ...	443 00
Berlin, ...	648 00
Bellingham (two contracts), ...	1,412 00
Bernardston, ...	265 00
Blandford, ...	900 00
Bolton, ...	550 00
Chesterfield (two contracts), ...	1,020 00
Cummington, ...	1,004 00
Dana (two contracts), ...	502 95
Dunstable, ...	325 00
East Bridgewater, ...	1,140 00
Eastham, ...	196 00
East Longmeadow, ...	680 00
Egremont, ...	840 00
Florida, ...	300 00
Gill, ...	430 00
Granville, ...	800 00
Halifax, ...	358 00
Hampden, ...	340 00
Hawley, ...	460 00
Heath, ...	320 00
Hudson, ...	3,000 00
Leyden, ...	405 00
Maynard, ...	394 00
Middleton (two contracts), ...	808 00
Monterey, ...	320 00
<i>Amount carried forward,</i>	\$18,864 95

<i>Amount brought forward,</i>	\$18,864 95
New Ashford,	105 00
New Marlborough (two contracts),	1,648 00
Norton (two contracts),	2,200 00
Oakham,	440 00
Otis,	416 00
Pembroke,	442 00
Peru (two contracts),	492 60
Plainfield,	620 00
Plympton (two contracts),	710 00
Prescott (two contracts),	636 00
Rowe,	415 00
Rutland,	1,148 00
Salisbury,	823 80
Sandisfield (two contracts),	1,240 00
Savoy (two contracts),	1,156 00
Sheffield,	1,024 00
Stow,	585 00
Tolland,	88 75
Tyringham (two contracts),	570 00
Washington,	764 00
Wellfleet,	1,653 00
Wendell (two contracts),	1,050 00
Westhampton,	767 00
Worthington,	1,285 00
Total,	\$39,144 10

Stone Crushers for "Small Town" Work.

Two portable crushing plants, including crusher, engine, boiler, elevator, bins, etc., at \$1,600,	\$3,200 00
Expended for repair and maintenance of steam road rollers, from loan fund,	\$16 50

EXPENDITURES UNDER SECTION 38, CHAPTER 112, REVISED LAWS.

Amesbury, Haverhill & Amesbury Street Railway Company,	\$3,740 30
Cheshire, Hoosac Valley Street Railway Company,	3,835 18
Total,	\$7,575 48

GENERAL OFFICE EXPENSES.

For Month of December, 1901.

[Under Acts of 1901, Chapter 541.]

Salaries of commissioners,	\$708 35
Travel of commissioners,	252 46
Salaries of clerical assistants and first and second assistant engineers,	946 67
<i>Amount carried forward,</i>	\$1,907 48

<i>Amount brought forward,</i>	\$1,907 48
Printing, including postal cards and envelopes, ...	129 15
Rent of offices, ...	989 58
Advertising hearings, ...	8 81
Office supplies, ...	13 63
Telephone, including tolls, ...	63 66
Postage, ...	10 84
Recording land takings and easements, ...	46 31
Typewriter and supplies, ...	102 40
Miscellaneous items, including express charges, telegrams, car fares and minor office expenses, ...	28 84
Total, ...	<u>\$3,300 70</u>

Jan. 1 to Nov. 30, 1902.

[Under Acts of 1902, Chapter 67.]

Salaries of commissioners, ...	\$7,791 65
Travel of commissioners, ...	2,153 21
Salaries of clerical assistants and first and second assistant engineers, ...	10,940 91
Rent of offices, ...	3,670 42
Printing, including postal cards and envelopes, ...	1,192 57
Office supplies, ...	395 68
Telephone, including tolls, ...	293 26
Postage, ...	154 95
Recording land takings and easements, ...	102 85
Examining titles, ...	37 40
Advertising hearings, ...	13 88
Repairs to steam road rollers, ...	811 68
Miscellaneous items, including express charges, telegrams, car fares and minor office expenses, ...	255 77
Total, ...	<u>\$27,904 23</u>

SUMMARY OF EXPENDITURES.

For construction, ...	\$466,742 66
For road repair and maintenance, ...	59,943 29
For steam roller repair and maintenance, loan fund, ...	16 50
For construction under "small town" acts, ...	39,144 10
For stone crushers for "small town" work, ...	3,200 00
For expenditures under chapter 112 of Revised Laws, ...	7,575 48
For general office accounts, ...	31,204 93
Total expenditures for year, ...	<u>\$607,826 96</u>

W. E. McCLINTOCK,
HAROLD PARKER,
JOHN H. MANNING,

Massachusetts Highway Commission.

APPENDIX.

APPENDIX A.

TABLE SHOWING THE HIGHWAYS LAID OUT OR CON OF THE SEVERAL CONSTRUC

[In the last column, the capital letters used have the following significance: A, trap; B, local limestone; F, gravel; G, gravel and four-inch macadam; H, screened gravel; K, clay and four-

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Abington, ...	1900-01, ...	Brockton line, ...
2	Acton, ¹	1899-1900-01, ...	Concord line, ...
3	Acton, ...	1902, ...	End of 1901 lay-out, ...
4	Acton (west), ...	1901, ...	Boxborough line, ...
5	Acushnet, ...	1897, ...	1,500 feet from New Bedford line, ...
6	Acushnet, ...	1901, ...	Long Plain village, ...
7	Adams, ...	1897, ...	Cheshire line, ...
8	Amesbury, ...	1899-1901, ...	Merrimac line, ...
9	Amherst, ...	1901, ...	Hadley line, ...
10	Andover, ...	1895-96, ...	Lawrence line, ...
11	Andover, ...	1897-99-1900, ...	North Reading line, ...
12	Andover, ...	1902, ...	End of 1900 lay-out, ...
13	Ashby, ...	1894-99, ...	Ashby post-office, ...
14	Ashfield, ...	1897-98, ...	One mile north of Ashfield post-office, ...
15	Athol, ...	1895-96, ...	Orange line, ...
16	Athol, ...	1902, ...	Phillipston line, ...
17	Attleborough, ...	1900-01, ...	North Attleborough line, ...
18	Auburn, ...	1895-97-1901, ...	Dunn's Mills, ...
19	Auburn, ...	1898-99, ...	Worcester line, ...
20	Barnstable (north), ...	1899, ...	Sandwich line, ...
21	Barnstable (north), ...	1902, ...	End of 1899 lay-out, ...
22	Barnstable ² (south), ...	1897-1901, ...	Yarmouth line, ...
23	Barre, ...	1897-99-1900, ...	Bridge over Ware River, ...
24	Barre, ...	1902, ...	End of 1900 lay-out, ...
25	Becket, ...	1902, ...	Chester line, ...
26	Bedford, ...	1897, ...	Lexington line, ...
27	Bedford, ...	1902, ...	End of 1897 lay-out, ...

Exclusive of 1,100 feet of railroad crossing. ² Exclusive of 1,050 feet at railroad crossing.

APPENDIX A.

TRACTED FOR BY THE COMMISSION, AND THE NATURE
TIONS TO JAN. 1, 1903.

field stone; C, local ledge other than trap; D, bottom course field stone, top course trap; E, inch macadam; M, clay and screened gravel; N, unsurfaced; O, stone from Cohasset quarry.]

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Easterly, . . .	1.18	1.18	50-60	15	3	B.	1
Northerly, . . .	3.43	3.43	50+	15	3	A-G.	2
North-westerly to Littleton line.	.28	.28	50	15	-	A-G.	3
South-easterly, . .	.72	.72	50	15	-	A.	4
Northerly, . . .	.63	.63	50+	15	3	B.	5
Northerly to Rochester line.	1.77	1.77	40	15	-	B.	6
Northerly, . . .	.57	.57	50	15	3	A. <i>MB</i>	7
Easterly, . . .	.94	.94	50-55-60	15	3	B.	8
Easterly, . . .	.95	.95	50	15	-	A.	9
Southerly, . . .	1.22	1.22	66	18	3	D.	10
Northerly, . . .	1.85	1.85	60	15	3	C.	11
Northerly, . . .	.47	.47	66	15	-	B.	12
Southerly to Fitchburg line.	3.58	3.58	66-50	20-18-15	5-3	B.	13
Northerly, . . .	1.61	1.61	50-70	-	-	H.	14
Easterly, . . .	1.61	1.61	50	17	3	D-A.	15
Westerly, . . .	.61	Partly graded. 2.20	50	-	-	B.	16
South-westerly, . .	2.20		66	-	-	F.	17
Southerly, . . .	2.91	2.91	50+	15	3	'95 A, '96-7 B, 1901 F. A.	18
Southerly, . . .	1.14	1.14	50+	15-18	3		19
South-easterly, . .	.95	.95	50	15	-	B.	20
South-easterly, . .	1.19	1.19	40-50	15	-	B.	21
Westerly, . . .	2.26	2.26	40-62	15-12	-	B.	22
North-westerly, . .	1.63	1.63	50-49.5	15	3	A.	23
North-westerly to Barre Common.	1.26	1.26	50±	15	-	B.	24
South-westerly, . .	.28	.28	50	12	-	A.	25
North-westerly, . .	.54	.54	50	15	3	B.	26
North-westerly, . .	.54	.39	50-60	15	-	B.	27

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Belchertown, . . .	1900-01, . . .	Near depot, ...
2	Belchertown, . . .	1902, ...	End of 1901 lay-out, ...
3	Bellingham, . . .	1902, ...	900 feet from Blackstone line, ...
4	Beverly, ...	1895-97-98, . . .	Wenham line, ...
5	Blackstone, ...	1899-1900, . . .	Uxbridge line, ...
6	Blackstone, ...	1902, ...	End of 1900 lay-out, ...
7	Bourne, ...	1897-98, ...	Cohasset Narrows, ...
8	Boxborough, ...	1897-99, ...	Acton line, ...
9	Braintree, ...	1900, ...	Quincy line, ...
10	Braintree, ...	1902, ...	End of 1901 lay-out, ...
11	Brewster, ...	1895-97-1901, . . .	Dennis line, ...
12	Brimfield, ¹	1897-99, ...	Monson line, ...
13	Brimfield, ...	1901, ...	Wales line, ...
14	Brimfield, ...	1902, ...	End of 1901 lay-out, ...
15	Brockton, ...	1897-98-99, . . .	Easton line, ...
16	Brockton, ...	1900, ...	Abington line, ...
17	Brookfield, ...	1897-98-1900, . . .	Mill Street, ...
18	Brookfield, ...	1902, ...	West Brookfield line, ...
19	Buckland, ...	1894-1900, ...	Shelburne Falls station, ...
20	Charlemont, ...	1897-98-99, . . .	Bridge over Deerfield River, ...
21	Charlton, ...	1901, ...	Charlton Depot village, ...
22	Charlton, ...	1902, ...	End of 1901 lay-out, ...
23	Chatham, ...	1899-1901, ...	From Depot Street, ...
24	Chatham, ...	1902, ...	From end of 1901 lay-out, ...
25	Chelmsford, ...	1898-99, ...	Lowell line, ...
26	Chelmsford, ...	1901, ...	906 feet from end of 1899 lay-out, ...
27	Chelsea, ...	1901, ...	Willoughby Street, ...
28	Cheshire, ...	1899-1900-01, . . .	Farnham's station, Boston & Albany Railroad.
29	Cheshire, ...	1902, ...	End of 1901 lay-out, ...
30	Chester, ...	1899-1900-01, . . .	131 feet from Becket line, ...
31	Chester, ...	1902, ...	From end of 1901 lay-out, ...
32	Chester, ...	1902, ...	Becket line, ...
33	Chicopee, ...	1897-99, ...	Springfield line, ...
34	Chicopee, ...	1902, ...	300 feet from Chicopee River, ...
35	Cohasset, ...	1897-99-1900, . . .	Near Hingham line, ...
36	Cohasset, ...	1902, ...	Beechwood Street, ...

¹ Exclusive of 200 feet of bridge at Fosket's mills.

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
South-westerly, .	1.26	1.26	50	15	-	A-G.	1
South-westerly, .	.10	.10	50	15	-	A.	2
North-easterly, .	.38	.38	50	15	-	B.	3
Southerly, . .	2.01	2.01	50-60	18	3	'95-7 A, '98 C.	4
South-easterly, .	1.17	1.17	49.5-50+	15	3	A-G.	5
South-easterly, .	.57	Partly graded.	49.5	-	-	A-G.	6
Easterly, . .	1.42	1.42	45+	15	3	B-C.	7
Westerly, . .	1.36	1.36	60-50	15	4-3	B.	8
South-easterly, .	.46	.46	66	18	3	A.	9
South-easterly, .	.60	.60	66	18	-	A.	10
To Orleans line, .	7.79	7.79	40-50-50+	15	3	B.	11
Southerly, . .	2.34	2.34	60-50	-	-	'99 F, '97 H.	12
Northerly, . .	1.19	1.19	50	-	-	F.	13
Northerly, . .	.43	.43	50	-	-	F.	14
Easterly, . .	1.87	1.87	33	16	8.5	B.	15
Westerly, . .	.66	.66	50	15	3	B.	16
Easterly, . .	1.39	1.39	50	15	3	A.	17
Easterly, . .	.56	.56	50+	15	-	A.	18
Westerly, . .	3.49	3.49	30-50	24-18-15-12	3	A-C.	19
Easterly, . .	.77	.77	50-42+	15	3	D.	20
Southerly, . .	1.10	1.10	50	15	-	B.	21
Southerly to Charl- ton City.	.81	.45	50	15	-	B.	22
North-westerly, .	1.27	1.27	50	15-12	-	A.	23
North-westerly, .	.42	.42	50	15	-	A.	24
Westerly, . .	.93	.93	50	18	3	A.	25
North-westerly, .	.51	.50	50	15	-	A.	26
Southerly, . .	.58	.58	66	24	-	A.	27
North-easterly, .	1.88	1.88	50	15	-	G-A-F.	28
North-easterly, .	.72	.72	50+	-	-	F.	29
North-easterly, .	1.15	1.15	50	15	3	A.	30
North-easterly, .	.38	.38	50	15	-	A.	31
North-easterly, .	.03	.03	50	12	-	A.	32
Northerly, . .	.92	.92	50-55-60	20	4-3	A.	33
Northerly, . .	.67	-	50+	-	-	A.	34
Easterly, . .	1.73	1.73	50-50+	15	3	B-D.	35
Southerly, . .	.37	.37	60+	15	-	C.	36

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Colrain, ...	1898-1901, . . .	From Shelburne line, ...
2	Concord, ...	1897-98, ...	From Lincoln line, ...
3	Concord, ...	1900, ...	From Acton line, ...
4	Cottage City, ...	1894-96, ...	Sengekontacket bridge, ...
5	Dalton, ...	1895-96, ...	Pittsfield line, ...
6	Dartmouth, ...	1898-9-1900-01, . .	Near Westport line, ...
7	Deerfield, ...	1894-95, ...	South Deerfield station, ...
8	Deerfield, ...	1900-01, ...	Cheapside bridge, ...
9	Deerfield, ...	1902, ...	End of 1901 lay-out, ...
10	Dennis, ...	1895-98, ...	Yarmouth line to Brewster line, . .
11	Dennis (south), ...	1900-1901, ...	Bass River bridge, ...
12	Dennis (south), ...	1902, ...	End of 1901 lay-out, ...
13	Dighton, ...	1902, ...	Taunton line, ...
14	Douglas, ...	1902, ...	Sutton line, ...
15	Dudley, ...	1902, ...	1,400 feet from Webster line, ...
16	Duxbury, ...	1894-5-7-9, ...	Marshfield line, ...
17	Easton, ...	1900, ...	Brockton line, ...
18	Easthampton, ...	1895-96, ...	Northampton line, ...
19	Easthampton, ...	1900-01, ...	Clark Street, ...
20	Edgartown, ...	1897-99-1900-01, . .	Sengekontacket bridge, ...
21	Edgartown, ...	1902, ...	End of 1901 lay-out, ...
22	Erving, ...	1898-99-1900, ...	Town Hall, ...
23	Essex, ...	1902, ...	Essex River, ...
24	Fairhaven, ...	1894-95, ...	Mattapoisett line, ...
25	Fitchburg, ...	1894-95, ...	Westminster line, ...
26	Fitchburg, ...	1897, ...	Lunenburg line, ...
27	Fitchburg, ...	1900-01, ...	Ashby line, ...
28	Foxborough, ...	1901, ...	Mansfield line, ...
29	Foxborough, ...	1902, ...	End of 1901 lay-out, ...
30	Freetown, ...	1902, ...	Acushnet line, ...
31	Gardner, ...	1897-98, ...	Templeton line, ...
32	Gardner, ...	1900-01, ...	Westminster line, ...
33	Gloucester, ...	1894-95-98, ...	Manchester line, ...
34	Goshen, ...	1894-95, ...	Goshen village, ...
35	Grafton, ...	1897-99-1900, ...	Millbury line, ...
36	Granby, ...	1894, ...	South Hadley line, ...

CONTRACTED FOR BY THE COMMISSION, ETC.—*Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Northerly, . .	1.83	1.83	40-50-50+	-	-	H.	1
Northerly, . .	1.47	1.47	50	15	3	B.	2
South-westerly, .	.52	.52	50	15	3	G-A.	3
Northerly, . .	2.37	2.37	50	15	3	B.	4
Easterly, . .	1.56	1.56	30-60	15	3	A.	5
Easterly, . .	2.68	2.68	80	18	-	B.	6
South-easterly, .	1.53	1.53	30	15	3	A.	7
Southerly, . .	.81	.81	50	15	-	A.	8
Southerly, . .	.54	.54	50	15	-	A-F.	9
North-easterly, .	4.27	4.27	40-50-65	15	3	B.	10
Easterly, . .	1.31	1.31	40-45	15	-	A.	11
Easterly, . .	.65	.65	45-50	15	-	A-N.	12
South-westerly, .	.59	.59	47.5-66	15	-	B.	13
Southerly, . .	.93	-	40+	15	-	B.	14
Westerly, . .	.60	.60	66	15	-	A-G.	15
Southerly, . .	2.05	2.05	30-40-50	15	3	A-B-C.	16
South-westerly, .	.80	.80	70	15	3	B-G.	17
South-westerly, .	1.32	1.32	40	15	3	A.	18
Southerly, . .	1.10	1.10	49.5	15	3	A.	19
Southerly, . .	1.53	1.53	50	15	-	B.	20
Southerly, . .	.52	.35	50	15	-	B.	21
Easterly to Orange line.	2.04	2.04	50-50+	-	-	F.	22
South-easterly, .	.22	-	40-50	-	-	-	23
Westerly, . .	1.45	1.45	30	15	3	B.	24
Easterly, . .	.97	.97	50	15	3	A.	25
Westerly, . .	.61	.61	50	18-15	3	D.	26
Southerly, . .	1.07	1.07	50	15	-	B.	27
Northerly, . .	.97	.97	50	15	-	B-G.	28
Northerly, . .	.84	.77	50	15	-	B-G.	29
North-easterly, .	1.39	1.06	50	15	-	B-G.	30
Easterly, . .	2.37	2.37	50+	15	-	A-G.	31
Westerly, . .	.98	.98	60	15	-	A-N.	32
North-easterly, .	2.48	2.48	50	15	3	C-B.	33
Williamsburg line,	1.91	1.91	50	15	3	B.	34
South-easterly, .	1.56	1.56	50	15	3	G-A-B.	35
North-easterly, .	.63	.63	36	15	3	A.	36

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Granby, ...	1902, ...	End of 1894 lay-out, ...
2	Great Barrington, ...	1894-96-97, ...	Housatonic River, ...
3	Great Barrington, ...	1902, ...	End of 1897 lay-out, ...
4	Greenfield, ...	1899-1900, ...	225 feet north-west of Boston & Maine bridge, near Deerfield line.
5	Greenfield, ...	1900, ...	500 feet from beginning of 1899 lay-out,
6	Greenfield, ...	1902, ...	End of 1900 lay-out, ...
7	Groton, ...	1901, ...	Near Nashua River, ...
8	Groton, ...	1902, ...	End of 1901 lay-out, ...
9	Groveland, ...	1900-01, ...	King Street, ...
10	Groveland, ...	1902, ...	End of 1901 lay-out, ...
11	Hadley, ...	1894-98-99-1900, ...	Connecticut River bridge, ...
12	Hadley, ...	1902, ...	End of 1899 lay-out, ...
13	Hamilton, ...	1899-1900, ...	Two miles north of Wenham line, ...
14	Hancock, ...	1895-96-98-99, ...	Pittsfield line, ...
15	Hardwick, ...	1897-1901, ...	New Braintree line, ...
16	Harvard, ...	1900, ...	Woodchuck Hill, ...
17	Harwich, ...	1899-1900-01, ...	Dennis line, ...
18	Harwich, ...	1902, ...	End of 1901 lay-out, ...
19	Hatfield, ...	1901, ...	Northampton line, ...
20	Haverhill, ...	1899, ...	West end of River Street, ...
21	Hingham, ...	1894, ...	Weymouth Back River, ...
22	Hingham, ...	1896-97, ...	Near Cohasset line, ...
23	Hinsdale, ...	1901, ...	Dalton line, ...
24	Hinsdale, ...	1902, ...	End of 1901 lay-out, ...
25	Holbrook, ...	1894-96, ...	Weymouth line, ...
26	Holbrook, ...	1902, ...	End of 1896 lay-out, ...
27	Holden, ...	1894-97, ...	(1894-1896, Holden village, ... 1897, beginning of 1894 lay-out, ...
28	Holden, ...	1898-1900, ...	Worcester line, ...
29	Huntington, ...	1895-96, ...	Russell line, ...
30	Lakeville, ...	1901, ...	One-half mile from Middleborough line,
31	Lakeville, ...	1902, ...	End of 1901 lay-out, ...
32	Lancaster, ...	1902, ...	Clinton line, ...
33	Lawrence, ...	1896, ...	Methuen line, ...
34	Lee, ...	1894-96, ...	Lee Park, ...
35	Lee, ...	1900, ...	Lenox line, ...
36	Leicester, ...	1894-95-96-98-99, ...	Worcester line, ...

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
North-easterly, .	.40	.38	50	15	-	A.	1
Easterly, . .	2.79	2.79	40-50-70	18-15	3	'94 A, '96-7 F.	2
South-easterly, .	.63	-	50	-	-	F.	3
North-westerly, .	.59	.59	49.5-50	18	-	A.	4
Easterly, . .	.40	.40	50	15	3	A.	5
Easterly, . .	.34	.34	50	15	-	A.	6
South-easterly, .	.54	.54	50	15	-	A.	7
South-easterly, .	.84	.50	50	15	-	A-G.	8
North-easterly, .	.78	.78	50	15	3	A.	9
North-easterly, .	.67	.67	50	15	-	A.	10
Easterly, . .	2.93	2.93	50-82.5-66+	15	3	A.	11
North-easterly, .	.08	Graded.	50	15	-	A.	12
North-easterly, .	1.44	1.44	60-50	15	3	B.	13
Westerly, . .	3.23	3.23	50	-	-	F.	14
Northerly, . .	.82	.82	50	15	3	A.	15
Westerly, . .	.70	.70	60	15	-	B.	16
Easterly, . .	2.53	2.53	40+	15	-	A.	17
Easterly, . .	.98	.98	40+	15	-	A-G.	18
North-easterly, .	.39	.39	50	15	-	A.	19
Westerly, . .	2.08	2.08	70	-	-	F.	20
Easterly, . .	1.42	1.42	34	-	-	F.	21
Westerly, . .	1.23	1.23	50-33+	15	3	D.	22
South-easterly, .	.40	.40	50	15	-	A.	23
South-easterly, .	.28	.28	50	15	-	A.	24
Westerly, . .	1.11	1.11	50	15	3	B-C.	25
North-easterly, .	.65	.65	50	15	-	B-G.	26
Northerly, { Southerly, {	2.70	2.70	30-49.5	18-15	3	B.	27
Northerly, . .	1.06	1.06	50	15	3-5	B.	28
Westerly, . .	1.01	1.01	50+	15	3	A.	29
South-westerly, .	1.97	1.97	50	15	-	B-G.	30
South-westerly, .	1.60	1.50	45	15	-	B-G.	31
Northerly, . .	1.25	.91	49.5	18	-	A.	32
Southerly, . .	.27	.27	50	18	7	C.	33
Easterly, . .	1.98	1.98	35-40-50	24-15	3	D.	34
Southerly, . .	1.26	1.26	50	15	3	D.	35
Westerly, . .	4.87	4.87	39 53-55-67+	24-18 16-15	3-5-5.5	'94-'96 D, '98-9 B.	36

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Lenox, ...	1899-1900-01, . . .	Lee line, ...
2	Leominster, ...	1901, ...	Near comb shop, ...
3	Leominster, ...	1902, ...	End of 1901 lay-out, ...
4	Lexington, ...	1895-98, ...	Massachusetts Avenue, ...
5	Lexington, ...	1900, ...	Bedford line, ...
6	Lincoln, ...	1895-97, ...	Concord line, ...
7	Littleton, ...	1902, ...	Acton line, ...
8	Littleton, ...	1902, ...	Westford line to Great road, . . .
9	Lowell (Boulevard), . . .	1897, ...	Tyngsborough line, ...
10	Lowell (Princeton Street), .	1897-8, ...	Chelmsford line, ...
11	Lunenburg, ...	1898 9-1900-01, . . .	Fitchburg line, ...
12	Lynn, ...	1899, ...	264 feet north of centre of channel of Saugus River and Revere line.
13	Mansfield, ...	1901, ...	Foxborough line, ...
14	Marion, ...	1894-5-1901, ...	Marion village, ...
15	Marion, ...	1897-9-1901, ...	Marion village, ...
16	Marion, ...	1902, ...	End of 1901 lay-out, ...
17	Marlborough (east), . . .	1897, ...	Sudbury line, ...
18	Marlborough (east), . . .	1902, ...	Near Hosmer Street, ...
19	Marlborough (west), . . .	1897-99-1900-01, . . .	Northborough line, ...
20	Marshfield, ...	1894-6 8-9-1901, . . .	Duxbury line, ...
21	Marshfield, ...	1902, ...	End of 1901 lay-out, ...
22	Mattapoisett, ...	1894-95, ...	Fairhaven line, ...
23	Mattapoisett, ...	1900-01, ...	Ned Point Light road, ...
24	Merrimac, ...	1897-8-9, ...	Near Haverhill line, ...
25	Merrimac, ...	1901, ...	Amesbury line, ...
26	Methuen, ...	1896-1900-01, ...	Lawrence line, ...
27	Methuen, ...	1902, ...	End of 1901 lay-out, ...
28	Middleborough, ...	1894-98, ...	Nemasket River, ...
29	Middleborough, ...	1902, ...	End of 1898 lay-out, ...
30	Millbury, ...	1900, ...	Worcester line, ...
31	Millbury, ...	1902, ...	Grafton line to Worcester line, . . .
32	Milton, ...	1899-1900, ...	Neponset River, ...
33	Monson, ...	1894, ...	Railroad bridge, ...
34	Monson, ...	1901, ...	Palmer line, ...
35	Montague, ...	1898-99, ...	Junction of pipe line and Ferry road,
36	Nantucket, ...	1894-5-6-7-8-9-1900-01.	First mile-stone, ...

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Northerly to Lenox village.	2.28	2.28	60-66-56±	15	3	D.	1
South-westerly, .	1.32	1.32	50	-	-	F.	2
South-westerly to Sterling line.	.85	.85	50	-	-	F.	3
Westerly, .	3.45	3.45	50-50±	15	3	B.	4
South-easterly, .	.85	.85	50	15	3	B.	5
Lexington line, .	2.07	2.07	50	15	3	B.	6
Northerly, . .	.50	.48	50	15	-	A-G.	7
South-easterly, .	.32	Partially graded.	50	-	-	F.	8
Easterly, . .	.97	.97	60	15	3	D.	9
Easterly, . .	1.34	1.34	50±	18	6	D.	10
Easterly, . .	1.85	1.85	50	15	3	D.	11
North-easterly, .	.90	-	70	-	-	-	12
South-easterly, .	.72	.72	50	15	-	B-G.	13
North-easterly to Wareham line.	1.58	1.48	40-50-65	15	3	B.	14
Westerly, . .	1.68	1.68	40-50-55	15	3	B.	15
Westerly to Mat- tapoisett line.	.16	.16	50	15	-	B.	16
Westerly, . .	.40	.40	50-60	15	3	B.	17
Easterly, . .	.61	.34	40-50	15	-	B.	18
Easterly, . .	2.41	2.41	50-65	15	5-4-3	B.	19
Northerly, . .	2.41	2.41	30-40-45	15	3	B-C.	20
Northerly, . .	.80	-	40-50	-	-	B.	21
Easterly, . .	1.16	1.16	30	15	3	B.	22
Easterly, . .	1.38	1.38	40-50	15	3	B.	23
North-easterly, .	.92	.92	50±	15	4-3	B-C.	24
South-westerly, .	.64	.64	50	15	3	C.	25
North-easterly, .	2.19	2.19	50	15	-	C-B.	26
North-easterly, .	.44	.44	50	15	-	B.	27
Southerly, . .	2.76	2.76	30-50	15	7.5-3	B.	28
South-easterly, .	1.50	-	50	-	-	B-G.	29
Southerly, . .	.38	.38	50	15	3	A.	30
Northerly, . .	.78	.78	50	15	-	A-G.	31
South-easterly, .	.87	.87	49.5-82.5	24	4	A.	32
Northerly, . .	.93	.93	36	15	3	A.	33
South-easterly, .	.10	.10	50	15	-	A.	34
North-westerly, .	1.63	1.63	60	15	3	A.	35
Easterly, . .	5.88	5.88	66	12-15	3	B-E-G.	36

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Natick, ...	1901, ...	Wellesley line, ...
2	Needham, ...	1901, ...	Newton line, ...
3	New Braintree, ...	1897, ...	Hardwick line, ...
4	Newbury, ...	1899-1900, ...	Newburyport line, ...
5	Newbury, ...	1902, ...	End of 1901 lay-out, ...
6	Newburyport, ...	1896-98, ...	West Newbury line, ...
7	Newton, ...	1901, ...	Needham line, ...
8	Norfolk, ...	1895, ...	Walpole line, ...
9	North Adams, ...	1894-6-7, ...	Williamstown line, ...
10	North Adams, ...	1900-01, ...	Boston & Maine Railroad bridge, Day- enport Street.
11	North Adams, ...	1902, ...	End of 1901 lay-out, ...
12	North Andover, ...	1900, ...	Lawrence line, ...
13	North Andover, ...	1902, ...	End of 1901 lay-out, ...
14	Northampton, ...	1894, ...	Hadley bridge, ...
15	Northampton, ...	1897-98-99-1900, ...	Easthampton line, ...
16	North Attleborough, ...	1894-97-99, ...	Bruce Avenue to Attleborough line, ...
17	Northborough (east), ...	1897-98, ...	Marlborough line, ...
18	Northborough (south), ...	1897, ...	Westborough line, ...
19	Northborough (west), ...	1900, ...	Shrewsbury line, ...
20	Northborough (west), ...	1902, ...	End of 1900 lay-out, ...
21	Northfield, ...	1901, ...	Near Mill Rock, ...
22	Northfield, ...	1902, ...	End of 1901 lay-out, ...
23	North Reading, ...	1897-98-01, ...	Andover line, ...
24	Norwood, ...	1895-96, ...	Ellis station, ...
25	Norwood, ...	1897-99, ...	Walpole line, ...
26	Orange, ...	1894-95-97, ...	Athol line, ...
27	Orange, ...	1900-01, ...	Erving line, ...
28	Orleans, ...	1900-01, ...	Brewster line, ...
29	Palmer, ...	1899-1900-01, ...	Tennyville, near Boston & Albany freight station to Monson line.
30	Paxton, ...	1895-98, ...	Worcester line, ...
31	Paxton, ...	1902, ...	End of 1898 lay-out, ...
32	Phillipston, ...	1897-98, ...	Near Athol line, ...
33	Phillipston, ...	1902, ...	Athol line, ...
34	Pittsfield, ...	1894-98-1901, ...	Hancock line, ...
35	Pittsfield, ...	1897, ...	Dalton line, ...
36	Pittsfield, ...	1902, ...	End of 1901 lay-out, ...

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles	Miles.	Feet.	Feet.	Feet.		
Westerly, . . .	1.14	1.14	60-70	15-18-20	-	A-G.	1
Westerly, . . .	1.00	1.00	60-86	22	-	B.	2
Southerly to Ware line.	.17	.17	50	15	3	A.	3
Southerly, . . .	2.10	2.10	66-80-95	15	3	B.	4
Southerly, . . .	.57	.57	66±	15	-	B.	5
Easterly, . . .	1.75	1.75	60-60+75+	15	3	C.	6
Easterly, . . .	1.03	1.03	45-86	22	-	A.	7
South-westerly to Wrentham line.	1.45	1.45	50	15	3	B.	8
Easterly, . . .	1.69	1.69	30-66	15	3	D.	9
South-easterly, .	1.01	1.01	50	15	3	A.	10
South-westerly, .	.48	.48	65	15	-	A.	11
South-easterly, .	.79	.79	60-66	15	3	D-A.	12
South-easterly, .	.89	.89	60 66	15	-	A.	13
South-westerly, .	.56	.56	40	20	3	C.	14
Northerly, . . .	1.12	1.12	50	15	3	A.	15
South-westerly, .	3.60	3.60	36-66	24-18-15	3	'94-'95 B, '96-'97-'99 F.	16
South-westerly, .	1.33	1.33	66	15	4-3	B.	17
North-westerly, .	.42	.42	50	15	3	B.	18
Easterly, . . .	.42	.42	66	15	3	B.	19
Easterly, . . .	.95	.95	66	15	3	B.	20
Southerly, . . .	.63	.63	70-160	15	-	B.	21
South-westerly, .	.53	.53	135-156	15	-	A.	22
Southerly, . . .	1.76	1.76	66	15	3	C-B.	23
Southerly, . . .	1.02	1.02	40-50-67	15	3	B.	24
Northerly, . . .	1.03	1.03	45-50-60	15	3	B.	25
Westerly, . . .	2.18	2.18	30-49.5	17	3-5	D-A.	26
Easterly, . . .	.83	.83	50	15	-	B.	27
North-easterly, .	1.24	1.24	50	15	3	B.	28
South-easterly, .	2.52	2.52	50+	15	3	G-A.	29
North-westerly, .	3.24	3.24	50-70	15	3-5	B.	30
North-westerly, .	.36	.36	65	15	-	B.	31
Easterly, . . .	1.19	1.19	50	15-12	3-4	B.	32
Easterly to begin- ning of 1897 lay- out.	.02	-	50	15	-	B.	33
Easterly, . . .	1.91	1.91	60-50-40	15	3	A.	34
Westerly, . . .	.76	.76	50	-	-	F.	35
Easterly, . . .	.47	-	50	15	-	A.	36

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Plymouth, ...	1894-98, ...	Beaver Dam Brook, ...
2	Plymouth, ...	1902, ...	End of 1898 lay-out, ...
3	Princeton, ...	1897-1900, ...	Princeton station, ...
4	Princeton, ...	1902, ...	End of 1900 lay-out, ...
5	Provincetown, ...	1901, ...	Near Truro line, ...
6	Quincy, ...	1899, ...	Near Weymouth Fore River bridge, ...
7	Quincy, ...	1902, ...	Braintree line, ...
8	Randolph, ...	1902, ...	Quincy line, ...
9	Raynham, ...	1901, ...	Taunton line, ...
10	Raynham, ...	1902, ...	End of 1901 lay-out, ...
11	Reading, ...	1899-1900, ...	Stoneham line, ...
12	Reading, ...	1902, ...	Methodist-Episcopal Church, ...
13	Rehoboth, ...	1895-96-99, ...	Seekonk line, ...
14	Revere, ...	1897-98, ...	Boston line, ...
15	Revere, ...	1899, ...	Saugus line, ...
16	Richmond, ...	1897-98-99-1901, ...	Boston & Albany Railroad station, ...
17	Richmond, ...	1902, ...	End of 1901 lay-out, ...
18	Rockland, ...	1902, ...	Abington line, ...
19	Rockport, ...	1902, ...	Near Gloucester line, ...
20	Russell, ...	1894-96-97-98-99, ...	Westfield line, ...
21	Salem, ...	1901, ...	Swampscott line, ...
22	Sandwich, ...	1897-8-1900, ...	Barnstable line, ...
23	Sandwich, ...	1902, ...	End of 1900 lay-out, ...
24	Saugus, ...	1899, ...	Fox Hill bridge, ...
25	Scituate, ...	1894-5-1900, ...	Gannett's Corners, ...
26	Seekonk, ...	1900-01, ...	Rehoboth line, ...
27	Seekonk, ...	1902, ...	End of 1901 lay-out, ...
28	Shelburne, ...	1894-97, ...	Bridge Street, ...
29	Shrewsbury, ...	1895-8-9-1900, ...	Worcester line, ...
30	Somerset, ...	1895-7-99-1900, ...	Slade's Ferry bridge, ...
31	Somerset, ...	1901-02, ...	End of 1895 lay-out, ...
32	Southbridge, ...	1902, ...	Charlton line, ...
33	South Hadley, ...	1895-7-8-9-1900, ...	Granby line, ...
34	Spencer, ...	1897-1900-01, ...	Leicester line, ...
35	Sterling, ...	1897-98, ...	Near town hall, ...
36	Stoneham, ...	1897-98, ...	South Street, ...

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Southerly and northerly.	3.86	3.86	40-50-112	15	3	B.	1
North-westerly, .	.42	.42	50	15	-	B.	2
Easterly, . .	.99	.99	50	15	3	B.	3
Easterly, . .	.59	-	50	15	-	B.	4
Westerly, . .	.22	.22	33	15	-	B.	5
North-westerly, .	.49	.50	63-66	32	-	A.	6
North-westerly, .	.57	.53	66	15	-	B.	7
South-easterly, .	.72	-	66	15	-	B.	8
North-easterly, .	.61	.61	40	15	-	A.	9
North-easterly, .	.23	.23	40	15	-	A.	10
Northerly, . .	1.07	1.07	66	15-18	3	B.	11
Northerly, . .	1.23	-	66	15-18	-	B.	12
Easterly, . .	1.89	1.89	60	15	3	B.	13
North-easterly, .	.58	.58	44-50	24	3	A.	14
South-westerly, .	.67	.67	71	22	2	A.	15
Northerly, . .	1.60	1.60	66	-	-	F.	16
Northerly, . .	.32	.41	66	-	-	F.	17
North-easterly, .	1.00	-	50	15	-	B.	18
Northerly, . .	.32	.32	50+	-	-	N.	19
Northeasterly to Huntington line.	6.66	6.66	50	15	3	'94-'95 A, '96-	20
Northerly, . .	.13	.13	60+	-	-	'97-'98-'99 F.	21
Westerly, . .	2.57	2.57	50	15	3	B.	22
North-westerly, .	.26	.26	50	15	-	O.	23
Southerly to Re- vere line.	1.60	1.60	71±	22	2	A.	24
South-easterly, .	1.77	1.77	30-40-50	15	3	A-B-C.	25
Westerly, . .	1.08	1.08	60	15	3	B.	26
Westerly, . .	.49	.49	60	15	-	B.	27
North-easterly to Colrain line.	2.16	2.16	30-50	18-15	3	B-A.	28
North-easterly, .	3.90	3.90	50-65-66	18-15	5-4-3	B.	29
Northerly, . .	3.59	3.59	40-50-60	18-15	3	B.	30
Northerly, . .	.91	.91	50+	15	-	B.	31
South-westerly, .	.91	.91	50	-	-	F.	32
South-westerly, .	2.42	2.42	36-50	15	3	A.	33
Westerly, . .	1.60	1.60	50-58-60	15	4-3	B-D.	34
South westerly, .	1.29	1.29	50	15	3	A.	35
Northerly, . .	.57	.57	60-66	15	7.5	B.	36

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	Stoneham, ...	1900-01, ...	Reading line, ...
2	Stoughton, ...	1902, ...	Lincoln Street, ...
3	Sturbridge, ...	1897, ...	Fisk Hill road, ...
4	Sudbury, ...	1897-8-1900-01, . .	Marlborough line, ...
5	Sudbury, ...	1901, ...	Wayland line, ...
6	Sudbury, ...	1902, ...	End of 1901 lay-out (west), ...
7	Sunderland, ...	1897, ...	Connecticut River bridge, ...
8	Sutton, ...	1899-1901, ...	Millbury line, ...
9	Sutton, ...	1902, ...	End of 1901 lay-out, ...
10	Swampscott, ...	1897-1900-01, . . .	Salem line, ...
11	Taunton, ...	1895-6-8-9-1900-01, .	Near Highland Street, ...
12	Templeton, ...	1899-1901, ...	Gardner line, ...
13	Templeton, ...	1902, ...	End of 1901 lay-out, ...
14	Tewksbury, ¹	1900-01, ...	Lowell line, ...
15	Tewksbury, ...	1902, ...	End of 1901 lay-out, ...
16	Tisbury, ...	1894, ...	Vineyard Haven village to West Tisbury line.
17	Townsend, ...	1896-8-9-1900-01, .	Townsend village, ...
18	Townsend, ...	1902, ...	End of 1899 lay-out, ...
19	Truro, ...	1895, ...	Wellfleet line, ...
20	Tyngsborough, ...	1895-96, ...	Tyngsborough bridge, ...
21	Uxbridge, ...	1897-98-1901, . . .	Blackstone line, ...
22	Wales, ...	1901, ...	Brimfield line, ...
23	Walpole (south), . . .	1894-5-7-1900, . . .	Norfolk line, ...
24	Walpole (north), . . .	1897-98, ...	Norwood line, ...
25	Walpole (north), . . .	1900, ...	150 feet from end of 1898 lay-out, . . .
26	Ware, ...	1897-99-1900, . . .	New Braintree line, ...
27	Wareham, ...	1896-1901, ...	Marion line, ...
28	Wareham, ...	1898-1901, ...	Cohasset Narrows bridge, ...
29	Warren, ...	1896-98, ...	West Warren, ...
30	Warren, ...	1899-1900-01, . . .	Warren village, ...
31	Watertown, ...	1895-96, ...	Waltham line, ...
32	Wayland, ⁴	1897-1900, ...	Weston line, ...
33	Wellesley, ...	1901, ...	Natick line, ...
34	Wenham, ...	1897-1901, ...	Beverly line, ...
35	Westborough, ...	1897, ...	Near insane hospital, ...
36	West Boylston, ...	1897-98, ...	Worcester line, ...

¹ Exclusive of 1,200 feet at railroad crossing.² Broken stone and clay.

CONTRACTED FOR BY THE COMMISSION, ETC. — *Continued.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Southerly, . .	1.01	1.01	66	15	-	B-G.	1
North easterly, .	.76	.76	60	15	-	B.	2
North-westerly, .	.58	.58	50	15	4-3	B.	3
Easterly, . .	2.97	2.97	50-60	15	3	B.	4
North-westerly, .	.75	.75	50	15	-	B.	5
Easterly to 1901 lay-out (east).	1.17	1.17	50	15	-	B.	6
Easterly, . .	.19	.19	50	15	3	A.	7
Southerly, . .	1.00	1.00	50	15	-	B.	8
Southerly, . .	.46	.46	50	15	-	B.	9
South-westerly, .	1.48	1.48	60-50-64-50±	18-20	-	F-A.	10
Westerly to Digh- ton line.	2.94	2.94	40-66	15	3	B.	11
North-westerly, .	1.00	1.00	50	15	-	G-A.	12
North-westerly, .	.43	.43	50	15	-	A-G.	13
South-easterly, .	1.11	1.11	50	15	3	A.	14
South-easterly, .	.76	.76	50	15	-	A.	15
South-westerly, .	1.93	1.93	50	15	3	B.	16
South-easterly to Groton line.	2.97	2.97	50-55-60	15	3	B-A-F.	17
North-westerly, .	1.72	.39	50-55	15	-	A.	18
Northerly, . .	2.36	2.36	40	10 ² -15 ³	-	K-M.	19
South-easterly to Lowell line.	2.95	2.95	60	15	3	A-D.	20
North-westerly, .	1.78	1.74	50	15	3-5	B-A.	21
South-westerly, .	1.04	1.04	50±	-	-	F.	22
Northerly, . .	2.60	2.60	50	15	3	C-B.	23
Southerly, . .	1.70	1.70	50	15	3	B.	24
Southerly, . .	.24	.24	50	15	3	B.	25
Southerly, . .	1.80	1.80	50	15	3	A.	26
North-easterly, .	.71	.57	50	15	3	B.	27
Westerly, . .	1.82	1.82	40±-50	15	3	B.	28
Easterly, . .	1.89	1.89	49.5-50	15	3-4	A.	29
Easterly to West Brookfield line.	1.41	1.41	49.5	15	-	A-G.	30
Easterly, . .	.85	.85	36	27	3-4	A-B.	31
North-westerly, .	2.27	2.27	50	15	3	B.	32
Easterly, . .	1.18	1.18	52-60-70	15	-	A-G.	33
Northerly, . .	1.11	1.11	50	18-15	-	A.	34
North-westerly, .	.71	.71	50	15	3	B.	35
Northerly, . .	1.55	1.55	50	15	3	'97 H, '98 A-H.	36

³ Beach stone.⁴ Exclusive of 1,800 feet at Concord River and railroad crossing.

TABLE SHOWING THE HIGHWAYS LAID OUT OR

	TOWN.	Year.	ROAD LAID OUT.
			From —
1	West Bridgewater, . .	1900-01, . . .	Brockton line, ...
2	West Bridgewater, . .	1902, ...	End of 1901 lay-out, ...
3	West Brookfield, . .	1899-1900-01, . .	Brookfield line, ...
4	West Brookfield, . .	1899, ...	Ware line, ...
5	Westfield, ...	1894-6-8-9, . . .	West Springfield line, ...
6	Westfield, ...	1898-9-1900-01, .	End of town macadam, ...
7	Westfield, ...	1902, ...	End of 1901 lay-out, ...
8	Westford, ...	1902, ...	Littleton line, ...
9	Westminster, ...	1894-5-6-7-8-9, .	Fitchburg line, ...
10	West Newbury, ...	1895-97, ...	Newburyport line, ...
11	Weston, ...	1898-99, ...	Near Waltham line to Wayland line, .
12	Westport, ...	1894-5-7-8, . . .	Dartmouth line, ...
13	West Springfield, . .	1895-96, ...	Top of Tatham Hill, ...
14	West Tisbury, ...	1895-97, ...	Tisbury line, ...
15	Westwood, ...	1899-1900, ...	Norwood line, ...
16	Weymouth, ...	1894, ...	Holbrook line to Abington line, . .
17	Weymouth, ...	1895-97, ...	Fore River, ...
18	Whately, ¹	1899-1901, ...	Deerfield line, ...
19	Whately, ...	1902, ...	End of 1901 lay-out, ...
20	Whitman, ...	1894-96, ...	Brockton line, ...
21	Wilbraham, ...	1895-7-1901, . . .	Springfield line, ...
22	Williamsburg, ...	1896-8-1901, . . .	Goshen line, ...
23	Williamstown, ...	1895-96-98, . . .	North Adams line, ...
24	Winchester, ...	1899-1900, ...	Arlington line, ...
25	Windsor, ...	1897, ...	Cumington line, ...
26	Windsor, ...	1902, ...	End of 1901 lay-out, ...
27	Woburn, ...	1900-01, ...	Winchester line, ...
28	Woburn, ...	1902, ...	End of 1901 lay-out, ...
29	Worcester, ...	1896-97, ...	Paxton line, ...
30	Worcester, ...	1897, ...	Holden line, ...
31	Worcester, ...	1900, ...	West Boylston line, ...
32	Wrentham, ...	1894 5-9-1900-01, .	Plainville, ...
33	Wrentham, ...	1897-98, ...	Norfolk line, ...
34	Wrentham, ...	1902, ...	End of 1898 lay-out, ...
35	Yarmouth (north), . .	1894-96, ...	Barnstable line, ...
36	Yarmouth (south), . .	1895-97, ...	Bass River bridge, ...

¹ Exclusive of 375 feet at railroad crossing.

CONTRACTED FOR BY THE COMMISSION, ETC. — *Concluded.*

ROAD LAID OUT.		Length Con- structed.	WIDTHS.			Material of Road Surface.	
Direction.	Length.		Location.	Macadam.	Shoulders.		
	Miles.	Miles.	Feet.	Feet.	Feet.		
Southerly, . .	1.97	1.97	50-60+-115	15	-	B.	1
Southerly, . .	.77	.77	55+	15	-	B.	2
North-westerly, .	1.50	1.50	50	15	-	A.	3
South-westerly, .	.15	.15	50	15	3	A.	4
Westerly, . .	2.22	2.22	50	18 15	3	A.	5
Westerly, . .	2.69	2.69	50+	18-15	3	A-B.	6
Westerly to Rus- sell line.	.90	.90	50	15	-	B.	7
Northerly, . .	2.45	Partially graded.	40-50	-	-	F.	8
South-westerly, .	3.00	3.00	50-60	15	3	D-C.	9
Westerly, . .	2.22	2.22	50-110	15	3 4.5	A-D.	10
Westerly, . .	3.15	3.15	50	18	-	C-B.	11
Easterly, . .	4.25	4.25	66-80	18	3	C-B.	12
Easterly, . .	1.53	1.53	50-136	18	3	A.	13
South-westerly, .	2.84	2.84	50	15-12-10	3	B.	14
Northerly to Ded- ham line.	1.05	1.05	45-55-60	15	3	B.	15
Easterly, . .	.25	.25	50	15	3	B.	16
Westerly to Back River.	1.75	1.75	125-50	15-18	3	A-B-C.	17
South-westerly, .	1.28	1.28	50	12	3	A.	18
South-westerly, .	.53	.53	50±	12	-	A.	19
Easterly, . .	1.70	1.70	45	18	4	B.	20
Easterly, . .	2.78	2.78	50-79	15	3	A.	21
South-easterly, .	2.11	2.11	50	15	-	B-F.	22
Westerly, . .	1.92	1.92	50-60-70	15	3	D.	23
North-easterly to Woburn line.	1.96	1.96	50	15-21-20	-	C.	24
Westerly, . .	.28	.28	50	-	-	F.	25
Westerly, . .	.38	.38	50	-	-	F.	26
North-westerly, .	1.68	1.68	40-50	15	-	G-C.	27
North-westerly to Burlington line.	.35	.35	40	15	-	B-G.	28
South-easterly, .	1.35	1.35	50	15	3	B.	29
Southerly, . .	.66	.66	50	15	3	B.	30
South-westerly, .	.54	.54	50	15	3	A.	31
Northerly, . .	4.02	4.02	26-50	15	3	B.	32
South-easterly, .	1.42	1.42	50	15	3	B.	33
South-easterly, .	.44	.44	50	15	-	A.	34
Easterly to Dennis line.	3.71	3.71	40-60	15	3	B.	35
Westerly to Barn- stable line.	5.10	5.10	40	15	3	B-C.	36

APPENDIX B.

TABLE SHOWING TOWNS AND CITIES IN WHICH WORK HAS BEEN DONE DURING THE YEAR 1902,
AND THE RESIDENT ENGINEERS ON SUCH WORK, TOGETHER WITH DATES OF BEGINNING AND
ENDING.

TOWN OR CITY.	County.	Lay-out.	Resident Engineer.	Date of Contract.	Date of Beginning.	Date of Ending.
Acton, .	Middlesex, .	1902	Warren, H. E.,	July 10, 1902,	1902. July 24,	1902. Oct. 27.
Amesbury, .	Essex, .	1902	Adams, C. E.,	Mar. 6, 1902,	Mar. 12,	Aug. 3.
Amherst, .	Hampshire, .	1901	Packard, S. G.,	May 29, 1902,	June 17,	Aug. 29.
Amherst, .	Hampshire, .	1901	Packard, S. G.,	Oct. 24, 1901,	Apr. 17,	June 6.
Andover, .	Essex, .	1902	Gray, A. W.,	July 17, 1902,	Sept. 3,	Dec. 5.
Athol, .	Worcester, .	1902	Phillips, H. D.,	Aug. 28, 1902,	Oct. 23,	Nov. 17.
Athol, .	Worcester, .	1902	Gerry, L. L.,	Aug. 28, 1902,	Oct. 23,	Nov. 5.
Attleborough, .	Bristol, .	1901	Holden, H. C.,	Aug. 8, 1901,	Apr. 14,	Apr. 19.
Auburn, .	Worcester, .	1901	Welton, C. A.,	Sept. 26, 1901,	Apr. 10,	July 19.
Barnstable, .	Barnstable, .	1902	Holden, H. C.,	July 17, 1902,	Aug. 1,	Oct. 10.
Barre (bridge), .	Worcester, .	1902	Howes, C. H.,	July 17, 1902,	Oct. 10,	Dec. 6.
Barre, .	Worcester, .	1902	Packard, S. G.,	Dec. 19, 1901,	Apr. 14,	Aug. 23.
Becket, .	Berkshire, .	1902	Packard, S. G.,	July 3, 1902,	Aug. 5,	Dec. 13.
Bedford, .	Middlesex, .	1902	Brown, G. R.,	July 10, 1902,	Aug. 18,	Oct. 4.
Belchertown, .	Hampshire, .	1901	Nichols, E. J.,	July 10, 1902,	July 22,	Dec. 31.
			Packard, S. G.,	Oct. 10, 1901,	Apr. 29,	Sept. 8.

Belchertown,	.	.	.	.	.	1902	Packard, S. G.,	.	.	Oct. 10, 1901,	Sept. 10,	Oct. 14.
Bellingham,	.	.	.	.	.	1902	Div. Engineer,	.	.	July 10, 1902,	Aug. 4,	Oct. 13.
Blackstone,	.	.	.	.	.	1902	Dadley, A. D.,	.	.	Aug. 21, 1902,	Oct. 8,	Oct. 21.
Blackstone,	.	.	.	.	.	1902	Bagge, G. W.,	.	.	Aug. 21, 1902,	Nov. 29,	Dec. 13.
Braintree,	.	.	.	.	.	1902	Norton, C. H.,	.	.	Mar. 27, 1902,	July 11,	Dec. 1.
Brimfield,	.	.	.	.	.	1901	Bradford, J. L.,	.	.	Oct. 10, 1901,	Mar. 31,	June 1.
Brimfield,	.	.	.	.	.	1901	Nichols, E. J.,	.	.	Oct. 10, 1901,	May 31,	July 17.
Brimfield,	.	.	.	.	.	1902	Nichols, E. J.,	.	.	Oct. 10, 1901,	June 24,	July 17.
Brookfield,	.	.	.	.	.	1902	Bagge, G. W.,	.	.	July 31, 1902,	Aug. 18,	Dec. 2.
Charlton,	.	.	.	.	.	1901	Welton, C. A.,	.	.	Oct. 3, 1901,	June 11,	Aug. 18.
Charlton,	.	.	.	.	.	1902	Welton, C. A.,	.	.	Oct. 3, 1901,	Aug. 18,	Dec. 13.
Chatham,	.	.	.	.	.	1902	Howes, C. H.,	.	.	June 19, 1902,	July 7,	Oct. 11.
Chelsea,	.	.	.	.	.	1901	-	.	.	Aug. 29, 1901,	May 5,	June 5.
Cheshire,	.	.	.	.	.	1901	Farnham, A. B.,	.	.	Oct. 10, 1901,	Apr. 15,	June 4.
Cheshire,	.	.	.	.	.	1902	Brown, G. R.,	.	.	Sept. 4, 1902,	Sept. 13,	Oct. 31.
Chester,	.	.	.	.	.	1901	Farnham, A. B.,	.	.	Sept. 5, 1901,	Apr. 14,	Apr. 16.
Chester,	.	.	.	.	.	1902	Brown, G. R.,	.	.	Sept. 18, 1902,	Oct. 6,	Nov. 15.
Cohasset,	.	.	.	.	.	1902	Litchfield, S., Jr.,	.	.	Aug. 28, 1902,	Sept. 22,	Oct. 21.
Colrain,	.	.	.	.	.	1901	Gerry, L. L.,	.	.	Oct. 3, 1901,	Apr. 21,	Sept. 6.
Deerfield,	.	.	.	.	.	1901	Gerry, L. L.,	.	.	Sept. 26, 1901,	May 9,	June 5.
Deerfield,	.	.	.	.	.	1902	Gerry, L. L.,	.	.	Apr. 10, 1902,	May 14,	Oct. 16.
Dennis (bridge),	.	.	.	.	.	1902	Howes, C. H.,	.	.	Feb. 20, 1902,	Mar. 12,	May 26.
Dennis,	.	.	.	.	.	1902	Howes, C. H.,	.	.	Apr. 17, 1902,	May 14,	July 5.
Dighton,	.	.	.	.	.	1902	Brine, L. R.,	.	.	July 24, 1902,	Aug. 4,	Oct. 22.
Dudley,	.	.	.	.	.	1902	Welton, C. A.,	.	.	Sept. 18, 1902,	Oct. 15,	Nov. 19.
Edgartown,	.	.	.	.	.	1902	Litchfield, S., Jr.,	.	.	May 29, 1902,	Sept. 8,	Oct. 25.
Edgartown,	.	.	.	.	.	1902	Holden, H. C.,	.	.	May 29, 1902,	Dec. 2,	Dec. 31.
Fitchburg,	.	.	.	.	.	1901	Phillips, H. D.,	.	.	Aug. 1, 1901,	Apr. 7,	May 8.
Foxborough,	.	.	.	.	.	1901	Brine, L. R.,	.	.	Oct. 10, 1901,	Apr. 9,	May 14.
Foxborough,	.	.	.	.	.	1902	Brine, L. R.,	.	.	Aug. 21, 1902,	Sept. 22,	Dec. 13.

TABLE SHOWING TOWNS AND CITIES IN WHICH WORK HAS BEEN DONE, ETC. — *Continued.*

TOWN OR CITY.	County.	Lay-out.	Resident Engineer.	Date of Contract.	Date of Beginning.	Date of Ending.
Freetown,	Bristol,	1902	Holden, H. C.	Aug. 14, 1902,	1902. Sept. 22,	1902. Dec. 2.
Gardner,	Worcester,	1901	Winslow, G. R.,	July 11, 1901,	July 28,	Aug. 9.
Granby,	Hampshire,	1902	Packard, S. G.,	June 26, 1902,	Aug. 13,	Oct. 3.
Greenfield,	Franklin,	1902	Gerry, L. L.,	July 10, 1902,	Aug. 11,	Oct. 16.
Groton,	Middlesex,	1901	Everett, P. H.,	Oct. 10, 1901,	Apr. 14,	Aug. 8.
Groton,	Middlesex,	1902	Everett, P. H.,	June 19, 1902,	June 28,	Oct. 20.
Groveland,	Essex,	1900-01	Adams, C. E.,	Nov. 8, 1900,	May 14,	Oct. 16.
Groveland,	Essex,	1902	Adams, C. E.,	June 19, 1902,	July 12,	Oct. 1.
Hadley,	Hampshire,	1901-02	Packard, S. G.,	Aug. 21, 1902,	Sept. 8,	Nov. 24.
Harvard,	Worcester,	1900	Everett, P. H.,	Nov. 22, 1900,	Apr. 7,	Apr. 26.
Harwich,	Barnstable,	1902	Hoves, C. H.,	July 3, 1902,	Aug. 4,	Dec. 16.
Hatfield,	Hampshire,	1901	Packard, S. G.,	Oct. 3, 1901,	Apr. 22,	June 4.
Hinsdale,	Berkshire,	1901	Farnham, A. B.,	Mar. 27, 1902,	Apr. 17,	July 14.
Hinsdale,	Berkshire,	1901	Brown, G. R.,	Mar. 27, 1902,	Apr. 17,	July 14.
Hinsdale,	Berkshire,	1902	Farnham, A. B.,	May 29, 1902,	Apr. 17,	July 14.
Hinsdale,	Berkshire,	1902	Brown, G. R.,	May 29, 1902,	June 9,	July 29.
Hinsdale,	Berkshire,	1902	Brown, G. R.,	May 29, 1902,	June 9,	July 29.
Hinsdale (bridge),	Norfolk,	1902	Norton, C. H.,	Sept. 4, 1902,	Oct. 6,	Nov. 10.
Holbrook,	Plymouth,	1902	Holden, H. C.,	June 12, 1902,	Aug. 7,	Nov. 1.
Lakeville,	Plymouth,	1901	Holden, H. C.,	Sept. 26, 1901,	Apr. 7,	July 19.
Lakeville,	Plymouth,	1902	Holden, H. C.,	Aug. 14, 1902,	Apr. 20,	Dec. 24.
Lancaster,	Worcester,	1902	Everett, P. H.,	June 19, 1902,	July 7,	Oct. 4.
Leominster,	Worcester,	1901	Everett, P. H.,	Oct. 24, 1901,	Apr. 15,	Sept. 6.
Leominster,	Worcester,	1902	Everett, P. H.,	May 29, 1902,	May 31,	Sept. 6.
Littleton (Great Road),	Middlesex,	1902	Warren, H. E.,	July 10, 1902,	July 24,	Oct. 27.
Littleton (Lowell Road),	Middlesex,	1902	Warren, H. E.,	Aug. 7, 1902,	Nov. 6,	Dec. 24.

Mansfield,	.	.	.	.	1901	Brine, L. R.,	.	Nov. 21, 1901,	April 1,	April 26.
Marion,	.	.	.	.	1902	Holden, H. C.,	.	Mar. 27, 1902,	May 5,	June 7.
Marlborough,	.	.	.	.	1901	Welton, C. A.,	.	June 13, 1901,	April 22,	July 9.
Marlborough,	.	.	.	.	1902	Raymond, C. A.,	.	Oct. 2, 1902,	Oct. 13,	Dec. 12.
Marshfield,	.	.	.	.	1901	Litchfield, S.,	.	Aug. 8, 1901,	Mar. 24,	April 3.
Methuen,	.	.	.	.	1902	Gray, A. W.,	.	June 19, 1902,	June 25,	Aug. 30.
Millbury,	.	.	.	.	1902	Welton, C. A.,	.	Aug. 28, 1902,	Sept. 18,	Dec. 12.
Monson (bridge),	.	.	.	.	1901	Nichols, E. J.,	.	Feb. 20, 1902,	April 21,	May 31.
Nantucket,	.	.	.	.	1901	Gray, A. W.,	.	Sept. 12, 1901,	Mar. 17,	April 29.
Needham,	.	.	.	.	1901	Winslow, G. R.,	.	Aug. 22, 1901,	April 14,	July 1.
Newbury,	.	.	.	.	1902	Adams, C. E.,	.	Sept. 26, 1901,	Mar. 28,	July 1.
North Adams,	.	.	.	.	1902	Brown, G. R.,	.	July 3, 1902,	July 24,	Sept. 20.
North Andover,	.	.	.	.	1902	Gray, A. W.,	.	June 26, 1902,	July 22,	Oct. 2.
Northborough,	.	.	.	.	1902	Welton, C. A.,	.	Sept. 27, 1902,	Oct. 6,	Dec. 19.
Northfield,	.	.	.	.	1901	Gerry, L. L.,	.	May 29, 1902,	July 22,	Sept. 13.
Northfield,	.	.	.	.	1902	Gerry, L. L.,	.	Sept. 26, 1901,	May 6,	Oct. 21.
Orleans,	.	.	.	.	1901	Howes, C. H.,	.	Sept. 26, 1901,	June 30,	Oct. 21.
Palmer (bridge),	.	.	.	.	1901	Nichols, E. J.,	.	May 22, 1902,	Sept. 2,	Oct. 18.
Paxton,	.	.	.	.	1902	Welton, C. A.,	.	Feb. 20, 1902,	April 21,	May 31.
Pittsfield,	.	.	.	.	1901	Farnham, A. B.,	.	July 18, 1901,	April 18,	June 21.
Pittsfield,	.	.	.	.	1901	Brown, G. R.,	.	July 18, 1901,	June 21,	July 14.
Plymouth,	.	.	.	.	1902	Litchfield, S., Jr.,	.	Sept. 4, 1902,	Oct. 1,	Nov. 1.
Quincy,	.	.	.	.	1902	Norton, C. H.,	.	July 17, 1902,	July 28,	Nov. 30.
Randolph,	.	.	.	.	1902	Brine, L. R.,	.	Oct. 30, 1902,	Nov. 21,	Dec. 15.
Raynham,	.	.	.	.	1901-02	Brine, L. R.,	.	April 24, 1902,	April 29,	June 28.
Richmond,	.	.	.	.	1902	Brown, G. R.,	.	July 3, 1902,	Sept. 17,	Nov. 29.
Rockport,	.	.	.	.	1902	Raymond, C. A.,	.	Aug. 7, 1902,	Sept. 18,	Dec. 22.
Sandwich,	.	.	.	.	1902	Howes, C. H.,	.	Sept. 11, 1902,	Oct. 13,	Dec. 6.
Seekonk,	.	.	.	.	1902	Brine, L. R.,	.	July 3, 1902,	Aug. 25,	Nov. 29.

TABLE SHOWING TOWNS AND CITIES IN WHICH WORK HAS BEEN DONE, ETC. — *Concluded.*

TOWN OR CITY.	County.	Lay-out.	Resident Engineer.	Date of Contract.	Date of Beginning.	Date of Ending.
Somerset,	Bristol,	1901-02	French, W. S.,	Nov. 7, 1901,	1902- April 10,	1902- Sept. 4.
Southbridge,	Worcester,	1902	Welton, C. A.,	June 26, 1902,	Aug. 25,	Nov. 6.
Stoughton,	Norfolk,	1902	Brinc, L. R.,	May 29, 1902,	June 3,	July 26.
Sudbury,	Middlesex,	1901-02	Warren, H. E.,	Apr. 24, 1902,	April 29,	Sept. 16.
Sutton,	Worcester,	1902	Bagge, G. W.,	Sept. 4, 1902,	Nov. 10,	Dec. 13.
Sutton,	Worcester,	1902	Dadley, A. D.,	Sept. 4, 1902,	Sept. 11,	Nov. 10.
Taunton,	Bristol,	1901	Holden, H. C.,	Sept. 12, 1901,	April 1,	April 26.
Templeton,	Worcester,	1901	Winslow, G. R.,	Sept. 5, 1901,	July 26,	Aug. 22.
Templeton,	Worcester,	1902	Everett, P. H.,	Aug. 21, 1902,	Sept. 29,	Oct. 21.
Templeton,	Worcester,	1902	Gerry, L. L.,	Aug. 21, 1902,	Oct. 21,	Oct. 27.
Tewksbury,	Essex,	1901	Litchfield, S., Jr.,	Oct. 3, 1901,	April 18,	May 15.
Tewksbury,	Essex,	1902	Adams, C. E.,	Aug. 21, 1902,	Sept. 8,	Dec. 20.
Townsend,	Middlesex,	1902	Everett, P. H.,	Aug. 21, 1902,	Sept. 9,	Oct. 4.
Truro,	Barnstable,	1895	Howes, C. H.,	July 11, 1901,	Mar. 24,	April 17.
Wales,	Hampden,	1901	Bradford, J. L.,	Oct. 10, 1901,	Mar. 31,	June 1.
Wales,	Hampden,	1901	Nichols, E. J.,	Oct. 10, 1901,	May 31,	July 17.
Wareham,	Plymouth,	1901	Holden, H. C.,	Aug. 15, 1901,	Sept. 24,	Nov. 14.
West Bridgewater,	Plymouth,	1901	Holden, H. C.,	Aug. 8, 1901,	April 24,	June 4.
West Bridgewater,	Plymouth,	1902	Brinc, L. R.,	June 5, 1902,	June 18,	Oct. 18.
Westfield,	Hampden,	1902	Brown, G. R.,	July 10, 1902,	July 24,	Nov. 29.
Westford,	Middlesex,	1902	Perkins, J. K.,	Aug. 7, 1902,	Aug. 18,	Sept. 17.
Westford,	Middlesex,	1902	Warren, H. E.,	Aug. 7, 1902,	Sept. 17,	Dec. 24.
Whately,	Franklin,	1901	Gerry, L. L.,	Sept. 5, 1901,	June 6,	June 14.
Whately,	Franklin,	1902	Packard, S. G.,	Aug. 28, 1902,	Oct. 2,	Nov. 23.

Wilbraham,	.	.	.	.	.	1901	Bradford, J. L.,	.	.	Oct. 31, 1901,	April 21,	June 1.
Wilbraham,	.	.	.	.	.	1901	Nichols, E. J.,	.	.	Oct. 31, 1901,	May 31,	June 21.
Windsor,	.	.	.	.	.	1902	Brown, G. R.,	.	.	June 12, 1902,	July 25,	Aug. 15.
Woburn,	.	.	.	.	.	1901	Shaw, S.,	.	.	Sept. 5, 1901,	Mar. 25,	April 18.
Woburn,	.	.	.	.	.	1902	Warren, H. E.,	.	.	April 12, 1902,	April 25,	June 14.
Wrentham,	.	.	.	.	.	1902	Brine, L. R.,	.	.	Aug. 21, 1902,	Sept. 8,	Nov. 15.

APPENDIX C.

SHOWING CONTRACT PRICES ON

CITY OR TOWN.	Contract Number.	Contractor.	EXCAVATION.			MASONRY (PER CUBIC YARD).				
			All Kinds (Cubic Yard).	Borrow (Cubic Yard).	Ledge (Cubic Yard).	Cement Masonry (Class A).	Cement Masonry (Class B).	Dry Masonry (Class C).	Dry Masonry (Class D).	Portland Cement Concrete Masonry.
1 Acton-Littleton,	654	John A. Gaffey, .	\$0 45	\$0 60	\$2 00	-	\$8 00	-	\$4 00	\$7 50
2 Amherst, . .	629	W. N. Flynt Granite Co.	50	50	2 00	-	-	-	-	4 50
3 Andover, . .	660	Town, . . .	50	40	1 75	-	-	-	-	5 50
4 Athol, . . .	678	William H. Doran, .	45	60	1 50	-	-	-	-	6 00
5 Barnstable, .	661	Town, . . .	30	40	2 00	-	-	-	-	5 50
6 Barre, . . .	649	Ferranti & Maguire,	45	55	1 50	-	-	-	-	7 00
7 Becket, . . .	655	John W. Polcaro, .	50	65	1 60	-	7 00	-	5 00	-
8 Bedford, . .	656	William H. Mague, .	30	40	1 50	\$12 00	8 00	\$7 00	\$14 00	¹⁰ {7 00 / 9 00}
9 Bellingham, ¹³ .	659	Town, . . .	-	-	-	-	-	-	-	-
10 Blackstone, .	671	William H. Doran, .	¹⁴ 45	¹⁴ 65	¹⁴ 2 50	-	-	-	-	¹⁴ 8 00
11 Braintree, .	620	Murphy & Gallagher,	40	50	2 00	¹⁷ 12 00	-	¹⁸ 5 00	-	-
12 Brookfield, .	666	Town, . . .	40	45	1 75	12 00	-	-	6 00	5 50
13 Charlton, . .	683	Ferranti & Maguire,	35	50	1 50	-	-	-	-	6 00
14 Chatham, . .	640	William Sears, . .	30	45	-	-	-	-	-	10 00
15 Cheshire, . .	684	Richmond F. Hudson,	39	49	3 00	-	-	-	-	8 00
16 Chester, . .	691	Lane Construction Co.	45	50	2 00	-	10 00	-	5 00	-
17 Chicopee, . .	701	City, . . .	35	50	1 75	-	-	-	-	6 00
18 Cohasset, . .	679	John S. Lane & Sons,	50	-	2 00	-	-	-	-	-
19 Deerfield, . .	623	Amos D. Bridge, .	40	50	1 00	¹⁷ 12 00	-	¹⁸ 6 00	-	-
20 Dennis (abutments),	615	Thomas & Connors, .	²⁰ 30	²¹ 1 25	-	¹⁷ 18 00	²² 7 25	²³ 1 60	-	-
21 Dennis (super-structure), ²⁴	616	United Construction Co.	-	-	-	-	-	-	-	-
22 Dennis, . . .	625	William Sears, . .	30	45	-	¹⁷ 12 00	-	¹⁸ 6 00	-	-
23 Dighton, . .	664	Joseph McCormick, .	50	60	4 00	-	8 00	-	5 00	10 00
24 Douglas, . .	698	Amos D. Bridge, .	50	60	2 50	-	-	-	-	9 00

¹ Cobble-stone gutters.² Fifteen-inch clay.³ Eight-inch clay.⁴ Ten-inch clay.⁵ Twenty-inch clay.⁶ Ten-inch iron.⁷ Fourteen-inch iron.⁸ Screened.⁹ Brick masonry.¹⁰ Natural cement concrete masonry.¹¹ Sixteen-inch iron.¹² Relaying common wall.

APPENDIX C.

STATE ROADS DURING 1902.

Gravel (Cubic Yard).		Shaping (Square Yard).	BROKEN STONE.		PIPE CULVERTS (PER LINEAL FOOT).						Fencing (Lineal Foot).	Side Drains (Lineal Foot).	Bounds (Each).	Catch basins (Each).	
			Local (Ton).	Trap (Ton).	CLAY.			IRON.							
					Twelve-inch.	Eighteen-inch.	Twenty-four-inch.	Twelve-inch.	Eighteen-inch.	Twenty-four-inch.					
-	\$0 02½	-	\$2 15	\$0 75	\$1 55	-	\$2 00	\$3 50	-	\$0 25	\$0 45	\$1 75	-	1	
-	03	-	2 00	-	-	-	-	-	-	25	50	2 00	1 70	2	
-	03	\$1 65	-	-	21 00	-	-	-	-	25	-	1 50	-	3	
-	03	1 50	-	70	-	-	-	-	-	25	45	1 50	25 00	4	
-	02	1 67	-	70	{ 345 460 }	{ 2 90 51 50 }	61 50	72 50	-	20	35	1 25	25 00	5	
\$1 00	03	1 50	-	65	-	-	1 75	-	-	25	50	2 00	25 00	6	
	03	-	2 05	1 00	480	-	2 00	61 80	-	28	-	2 00	-	7	
-	02	1 50	-	-	21 50	-	-	113 50	-	{ 1212 25 }	40	1 50	30 00	8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
-	1403	-	142 00	1475	14,1545	-	-	-	-	-	14,1640	142 00	-	10	
75	03	-	1 90	75	-	-	-	-	-	25	-	2 00	25 00	11	
-	03	-	1 80	-	-	-	-	-	-	25	1620	1 50	-	12	
-	02½	1 45	191 20	60	1 25	-	-	-	-	25	1630	2 00	-	13	
-	03	-	2 50	360	470	-	-	-	-	-	-	1 50	25 00	14	
-	-	-	-	465	1 00	-	62 75	3 50	-	30	-	1 40	22 00	15	
-	03	-	1 80	350	470	21 00	61 75	-	-	25	-	2 00	25 00	16	
-	03	-	1 85	75	350	-	-	-	-	25	-	1 50	25 00	17	
-	03	-	1 90	360	-	-	-	-	-	30	-	1 50	-	18	
70	03	-	1 80	-	-	-	2 00	3 00	-	25	50	1 50	-	19	
-	-	-	-	-	-	-	-	-	-	22	-	-	-	20	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	
-	03	-	2 25	360	-	-	-	-	-	25	-	1 50	25 00	22	
-	03	1 45	-	70	345	-	-	-	-	24	-	3 00	-	23	
-	03	1 65	-	90	51 75	-	-	-	-	25	1635	1 50	-	24	

13 Lump sum, \$1,232.

14 Less 3 per cent.

15 Five-inch clay.

16 Blind drains.

17 Cement masonry.

18 Rubble masonry laid dry.

19 Unscreened broken stone.

20 Embankment.

21 Excavation for abutments.

22 Masonry in cement.

23 Riprap.

24 Lump sum, \$1,450.

SHOWING CONTRACT PRICES ON

CITY OR TOWN.	Contract Number.	Contractor.	EXCAVATION.			MASONRY (PER CUBIC YARD).				
			All Kinds (Cubic Yard).	Borrow (Cubic Yard).	Ledge (Cubic Yard).	Cement Masonry (Class A).	Cement Masonry (Class B).	Dry Masonry (Class C).	Dry Masonry (Class D).	Portland Cement Concrete Masonry.
1 Dudley, . . .	692	Fred E. Ellis, . . .	\$0 60	\$0 70	\$2 50	-	-	-	-	\$8 00
2 Edgartown, . .	630	Town, . . .	25	30	-	-	-	-	-	-
3 Essex, ³ . . .	665	Town, . . .	40	45	-	-	-	-	-	-
4 Foxborough, . .	672	Town, . . .	40	50	2 00	-	-	-	-	6 00
5 Freetown, ⁶ . .	670	Town, . . .	-	-	-	-	-	-	-	-
6 Granby, . . .	645	W. N. Flynt Granite Co.	50	50	2 00	-	-	-	-	8 00
7 Great Barrington.	699	John W. Polcaro, . .	45	57	1 00	-	-	-	-	7 00
8 Greenfield, . .	657	Amos D. Bridge, . .	50	65	1 00	-	-	-	-	8 00
9 Groton, . . .	641	A. J. Wellington, . .	50	50	3 00	-	-	-	-	6 00
10 Groveland, . .	642	A. J. Wellington, . .	50	50	3 00	-	-	-	-	6 00
11 Hadley, . . .	673	Amos D. Bridge, . .	50	55	1 00	-	-	-	-	-
12 Harwich, . . .	650	William Sears, . . .	30	960	1060	-	-	-	-	7 00
13 Hinsdale, . . .	621	Hammond & Walsh,	29	39	1 25	¹² \$9 00	-	¹³ \$5 00	-	-
14 Hinsdale, . . .	631	Hammond & Walsh,	39	44½	1 74	-	-	-	-	8 00
15 Hinsdale (bridge).	685	John W. Polcaro, . .	-	-	-	146 75	¹² \$10 50	-	-	5 50
16 Holbrook, . . .	638	William H. Doran, . .	45	45	10	-	-	-	-	4 50
17 Lakeville, ¹⁵ . .	669	Town, . . .	-	-	-	-	-	-	-	-
18 Lancaster, . . .	643	William H. Blood, . .	50	50	3 00	-	-	-	-	6 00
19 Leominster, . .	632	Murphy & Gallagher,	45	75	2 00	-	8 00	-	\$5 00	4 50
20 Marion, . . .	622	Town, . . .	35	50	1 75	¹² 9 00	-	¹³ 5 00	-	-
21 Marlborough, . .	695	City, . . .	50	60	2 00	-	-	-	-	6 00
22 Marshfield, . .	702	Lane Construction Corp.	35	60	-	-	-	-	-	10 00
23 Methuen, . . .	644	James E. Watkins, . .	50	60	1 00	-	10 00	-	5 00	-
24 Middleborough. ²¹	686	Town, . . .	-	-	-	-	-	-	-	-
25 Millbury, . . .	680	Town, . . .	45	60	2 00	-	-	-	-	6 00
26 Newbury, . . .	651	Michael Cashman, . .	50	50	3 00	-	-	-	-	5 00
27 North Adams, . .	646	Hammond & Walsh,	45	50	1 75	-	-	-	-	8 00
28 No. Andover, . .	694	Lane Construction Corp.	45	60	1 50	12 00	-	-	4 50	-
29 Northborough, . .	633	Fred E. Ellis, . . .	60	40	1 00	-	-	-	-	3 00
30 Orleans, . . .	628	Town, . . .	30	40	2 00	-	-	-	-	6 00
31 Palmer-Monson (abutments).	617	Lawler Bros., . . .	-	-	-	¹² 12 00	¹⁴ 10 45	²⁴ 1 00	-	-

¹ Less 3 per cent.⁵ Ten-inch clay.⁸ Cobble-stone gutters.² Blind drains.⁶ Lump sum, \$4,400.⁹ Clay hardening for sub-grade.³ Lump sum for construction of bridge, \$3,994.¹⁰ Clay binder.¹² Cement masonry.⁴ Eight-inch clay.⁷ Ten-inch iron.¹¹ Leaching basins.

STATE ROADS DURING 1902—Continued.

Gravel (Cubic Yard).	Shaping (Square Yard).	BROKEN STONE.		PIPE CULVERTS (PER LINEAL FOOT).						Fencing (Lineal Foot)	Side Drains (Lineal Foot).	Bounds (Each).	Catch-basins (Each)	
		Local (Ton).	Trap (Ton).	CLAY.			IRON.							
				Twelve-inch.	Eighteen-inch.	Twenty-four-inch.	Twelve-inch.	Eighteen-inch.	Twenty-four-inch.					
-	1 ⁰⁰ 03	-	1 ⁰² 10	1 ⁰⁰ 85	-	-	1 ⁰² 00	-	-	1 ⁰⁰ 25	1 ⁰⁰ 35 150	1 ⁰² 00	-	1
-	02	\$2 10	-	-	-	-	-	-	-	-	-	1 00	\$25 00	2
-	02	-	1 90	-	-	-	-	-	-	25	-	1 50	-	3
-	02 ¹ / ₂	1 47	-	45	560	-	-	-	-	25	-	1 50	25 00	4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
-	03	-	2 35	-	-	-	2 50	-	-	25	-	2 50	-	6
-	-	-	-	-	-	-	2 00	1 80	-	30	45	2 25	-	7
-	03	-	2 00	75	-	-	-	-	-	30	45	1 50	30 00	8
-	03	-	2 00	-	-	-	-	-	-	30	50	2 00	30 00	9
-	03	-	2 10	570	-	-	-	-	-	25	50	2 00	30 00	10
-	03	-	2 30	-	-	-	-	-	-	30	50	1 50	-	11
-	03	-	2 35	460	570	-	72 00	-	-	25	-	1 50	1120 00/ 25 00	12
-	02	-	1 70	1 00	1 50	\$2 50	1 75	2 50	\$3 50	25	-	1 50	24 00	13
-	02 ¹ / ₂	-	1 85	1 00	1 35	-	1 90	2 90	-	25	-	1 95	28 00	14
-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
-	03	1 50	-	70	-	-	2 50	-	-	25	-	2 00	-	16
-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
-	-	-	1 90	-	-	-	-	-	-	25	-	-	-	18
-	1 ⁰⁰ 03	-	-	75	-	-	2 50	-	-	30	-	2 00	-	19
\$0 60	02	1 50	-	75	-	-	-	-	-	20	-	2 50	-	20
-	03	1 55	-	75	1 40	-	1 75	-	-	25	40	2 00	25 00	21
-	05	1 60	-	1730	570	460	-	-	-	30	40	1 50	25 00	22
-	02 ¹ / ₂	1 60	-	-	181 25	-	1 75	102 60	203 50	25	40	1 50	-	23
-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
-	02	-	1 80	-	-	-	-	-	-	25	-	2 00	-	25
-	03	1 50	-	75	-	-	1 50	-	-	30	30	1 50	-	26
-	02 ¹ / ₂	-	2 00	51 00	222 00	-	71 90	192 90	-	25	40	1 75	-	27
-	03	-	2 05	75	1 20	1890/ 231 55	193 25	3 50	204 00	25	65	2 00	25 00	28
-	03	1 40	-	80	1 25	450	-	3 50	-	25	-	2 00	20 00	29
-	02 ¹ / ₂	1 32	-	70	-	-	-	-	-	30	-	1 50	25 00	30
-	-	-	-	-	-	-	-	-	-	-	-	-	-	31

¹³ Rubble masonry laid dry.¹⁴ Masonry in cement.¹⁵ Lump sum, \$5,000.¹⁶ Rolling surface.¹⁷ To be relaid.¹⁸ Fifteen-inch clay.¹⁹ Sixteen-inch iron.²⁰ Twenty-inch iron.²¹ Lump sum, \$2,640.²² Sixteen-inch clay.²³ Twenty inch clay.²⁴ Riprap.

SHOWING CONTRACT PRICES ON

CITY OR TOWN.	Contract Number.	Contractor.	EXCAVATION.			MASONRY (PER CUBIC YARD).				
			All Kinds (Cubic Yard).	Borrow (Cubic Yard).	Ledge (Cubic Yard).	Cement Masonry (Class A).	Cement Masonry (Class B).	Dry Masonry (Class C).	Dry Masonry (Class D).	Portland Cement Concrete Masonry.
1 Palmer-Monson (superstruct.). ¹	618	United Construction Co.	-	-	-	-	-	-	-	-
2 Paxton, . . .	647	Ferranti & Maguire, .	\$0 50	\$0 60	\$2 00	-	-	-	-	\$8 00
3 Pittsfield, . .	693	John W. Polcaro, . .	60	75	1 00	-	-	-	-	6 00
4 Plymouth, . .	687	Lane Construction Corp.	50	55	2 00	-	-	-	-	8 00
5 Princeton, . .	681	William H. Doran, . .	50	60	1 00	-	-	-	\$4 50	8 00
6 Quincy, . . .	662	City, ...	40	65	1 75	-	\$5 00	-	3 00	-
7 Randolph, . .	703	Fred E. Ellis, . . .	55	55	2 00	-	-	-	-	9 00
8 Raynham, . . .	626	William H. Doran, . .	40	45	10	\$12 00	-	\$5 50	-	-
9 Reading, . . .	696	Ferranti & Maguire, .	44	59	1 50	-	-	-	-	7 50
10 Richmond, . .	652	Town, ...	45	50	2 00	12 00	7 00	-	-	5 00
11 Rockland, . .	697	Town, ...	30	45	1 75	-	-	-	-	6 00
12 Rockport, . .	667	J. J. Welch & Co, . .	45	70	2 25	-	9 00	-	7 00	-
13 Sandwich, ¹³ .	690	Town, ...	-	-	-	-	-	-	-	-
14 Seekonk, ¹⁴ . .	653	Town, ...	-	-	-	-	-	-	-	-
15 Southbridge, .	648	Town, ...	45	80	2 00	-	-	-	-	5 00
16 Stoughton, . .	634	Fred E. Ellis, . . .	60	40	1 00	10 00	-	-	4 50	-
17 Sudbury, . . .	627	John A. Gaffey, . . .	39	40	1 50	78 00	-	84 00	-	-
18 Sudbury (bridge). ¹⁷	663	Town, ...	-	-	-	-	-	-	-	-
19 Sutton, ...	688	Town, ...	45	60	1 75	-	-	-	-	6 00
20 Templeton, . .	674	Fred E. Ellis, . . .	1955	1965	192 00	-	-	-	-	199 00
21 Tewksbury, . .	675	Bruno & Milano, . . .	45	48	1 00	-	-	-	-	5 50
22 Townsend, . . .	676	Fred E. Ellis, . . .	1960	1965	191 00	-	-	-	-	197 00
23 Wareham-Marion.	704	Joseph McCormick, . .	35	2160	-	-	-	-	-	-
24 West Bridge-water.	637	William H. Doran, . .	40	60	10	12 00	-	-	5 50	-
25 Westfield, ²³ .	658	Town, ...	-	-	-	-	-	-	-	-
26 Westford, . . .	668	Harvey W. Tarbell, . .	48	50	3 00	-	4 50	-	2 50	-
27 Whately, . . .	682	W. N. Flynt Granite Co.	40	40	-	-	-	-	-	8 00
28 Windsor, . . .	639	John W. Polcaro, . . .	52	38	1 00	-	-	-	-	8 00
29 Woburn, . . .	624	City, ...	50	50	1 75	78 00	-	\$5 00	-	-
30 Wrentham, . . .	677	Town, ...	35	40	1 75	-	-	-	-	-

¹ Lump sum, \$2,650.² Unscreened broken stone.³ Cobble-stone gutters.⁴ Blind drains.⁵ Broken gravel as foundation for macadam.⁶ Fifteen-inch clay.⁷ Cement masonry.⁸ Rubble masonry laid dry.¹⁰ Screened.¹³ Work paid for at actual cost.⁹ Ten-inch iron.¹¹ Ten-inch clay.¹² Eight-inch clay.

STATE ROADS DURING 1902—*Concluded.*

Gravel (Cubic Yard).	Shaping (Square Yard).	BROKEN STONE.		PIPE CULVERTS (PER LINEAL FOOT).						Fencing (Lineal Foot).	Side Drains (Lineal Foot).	Bounds (Each).	Catch-basins (Each).	
		Local (Ton).	Trap (Ton).	CLAY.			IRON.							
				Twelve-inch.	Eighteen-inch.	Twenty-four-inch.	Twelve-inch.	Eighteen-inch.	Twenty-four-inch.					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	\$0 03	\$1 69	\$1 20	-	-	-	-	-	-	\$0 26	\$0 50	\$3 00	\$0 70	2
-	03	-	1 95	-	-	-	-	\$2 75	-	25	-	2 00	-	3
-	03	1 75	-	\$.75	-	-	-	-	-	25	-	2 00	25 00	4
-	03	1 50	-	-	-	-	-	-	-	25	435	1 50	-	5
5 \$1 00	02	-	2 15	80	\$1 00	-	-	-	-	20	-	1 50	-	6
-	03	1 35	-	80	-	-	-	-	-	25	45	2 00	-	7
75	03	-	2 24	-	-	-	-	-	-	25	-	1 50	25 00	8
-	03	1 44	-	60	670	-	\$2 30	-	-	24	-	2 00	25 00	9
101 00	-	-	-	-	1 00	-	-	-	-	20	45	1 50	-	10
-	03	1 45	-	1160	1240	-	1 75	-	-	25	-	1 25	25 00	11
-	-	-	-	-	-	\$2 50	-	-	-	25	45	2 00	\$70	12
-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
-	-	-	-	65	680	-	152 00	-	-	20	-	1 50	-	15
-	03	1 35	-	{ 1160 1250 }	1 10	685	-	-	-	25	-	1 50	20 00	16
60	02½	1 55	-	70	1 15	1 95	1 60	162 50	-	20	-	1 50	20 00	17
-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
-	03	89	181 20	60	-	-	1 50	-	-	25	425	1 50	-	19
-	1903	-	192 15	1980	12,1950	-	192 00	-	-	1925	19,2065	191 75	1925 00	20
-	02	-	1 98	-	1 05	-	-	-	-	24	-	1 50	-	21
-	1903	-	192 25	1980	12,1950	-	192 00	-	-	1925	-	191 75	1925 00	22
-	03	1 50	2270	-	-	-	-	-	-	-	-	-	-	23
-	03	1 45	-	61 00	1 20	-	2 00	-	-	25	40	1 50	-	24
-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
-	-	-	-	{ 682 60 }	1 09	1 74	1 80	3 10	-	20	-	1 50	-	26
-	03	-	1 90	1 00	-	-	3 00	-	-	30	-	2 00	-	27
-	-	2475	-	-	-	-	-	-	-	25	30	2 75	25 00	28
-	02	1 60	-	-	-	-	Cost.	Cost.	Cost.	20	40	1 50	25 00	29
-	03	-	1 95	-	-	-	-	-	-	20	-	1 40	-	30

¹⁴ Lump sum, \$3,600.¹⁵ Fourteen-inch iron.¹⁶ Sixteen-inch iron.¹⁷ Lump sum, \$325.¹⁸ Field and wall stones as foundation for macadam.¹⁹ Less 5 per cent.²⁰ Cobble-stones in underdrains.²¹ Hardening for sub-grade.²² Placing and rolling stacked stone.²³ Lump sum, \$5,000.²⁴ Rock embankment.

APPENDIX D.

STATEMENT OF CLAIMS AGAINST THE COMMISSION.

[AS REQUIRED BY CHAPTER 18 SECTION 5, OF THE REVISED LAWS.]

NAME.	Residence.	Nature of Claim.	Amount.	Remarks.
Bennett, J. C.,	Lynn, .	Damages caused by taking of land in Lynn, .	-	Settled in part.
Bigelow, O. J.,	Athol, .	Damages caused by taking of land in Athol, .	1\$200 00	Settlement pending.
Crowell, T. H.,	Somerville, .	Damages caused by construction of State road in Chatham,	-	Suit entered.
Dane, G. E. F., estate of,	Hamilton, .	Damages caused by taking of land in Hamilton, .	-	Suit entered.
Donovan, J. H.,	Natick, .	Damages caused by construction of State road in Natick, .	-	Suit entered.
Griffin, John, <i>et al.</i> ,	Natick, .	Damages caused by construction of State road in Natick, .	-	Suit entered.
Hudson Co-operative Bank,	Hudson, .	Damages caused by construction of State road in Marlborough,	-	Suit entered.
Loring, John S.,	Northborough,	Damages caused by laying out and construction of State road in North-	-	Suit entered.
Massaemet Yarn Mills,	Colrain, .	Damages caused by construction of State road in Colrain, .	-	Suit entered.
Radford, Harry L.,	-	Accident on State road in Leicester; automobile damaged,	-	-
Thlmineur, Joseph,	Marlborough, .	Damages caused by construction of State road in Marlborough,	-	Suit entered.
Waite, Myra J.,	Deerfield, .	Damages caused by construction of State road in Deerfield, .	-	Suit entered.
Warren, Alice E. M.,	Auburn, .	Damages caused by construction of State road in Auburn, .	-	Suit entered.

¹ Amount awarded by the commission.

APPENDIX E.

COST PER MILE OF ROAD (SECTIONS COMPLETED DURING THE YEAR 1902).*

TOWN OR CITY.	Square Yards.	Miles.	Cost per Mile.
Acton-Littleton, ...	6,690	.870	\$8,767 90
Amherst (1), ...	8,390 }	.433	11,656 65 }
Amherst (2), ...		.521	9,958 21 }
Andover, ¹	4,167	.474	7,617 89
Auburn, ²	8,680	.986	4,557 96
Barnstable (1), ³	7,565	1.420	1,999 67
Barnstable (2), ¹	10,430	1.185	2,684 14
Becket, ³	2,133	.303	9,328 76
Belchertown, ...	6,210	.706	8,728 58
Bellingham, ...	3,333	.380	3,276 89
Brimfield-Wales, ²	23,490	1.669	4,387 73
Brookfield, ¹	4,915	.559	7,239 70
Chatham, ...	3,750	.426	4,672 46
Chelsea, ⁴	8,141	.578	21,466 78
Cheshire (1), ²	4,000	.455	4,044 60
Cheshire (2), ²	6,330	.720	4,389 54
Chester, ¹	3,305	.376	11,449 41
Cohasset, ...	3,250	.370	5,990 78
Colrain, ²	6,640	.755	4,266 66
Deerfield (1), ...	3,300	.375	10,829 57
Deerfield (2), ...	4,710	.535	11,672 14
Dennis, ...	3,915	.445	3,063 39
Dighton, ...	5,240	.594	7,886 85
Dudley, ...	5,180	.588	7,147 50
Fitchburg, ...	4,335	.492	9,251 30
Foxborough, ...	8,595	.977	5,545 82
Freetown, ...	12,215	1.388	3,197 37

* The cost of bridges is not included in this table.

¹ Approximate; final quantities not fully determined.³ Macadam 12 feet in width on portion of road.² Gravel road.⁴ Macadam 24 feet in width.

COST PER MILE OF ROAD, ETC.—*Continued.*

TOWN OR CITY.	Square Yards.	Miles.	Cost per Mile.
Granby, ...	3,500	.398	\$13,097 83
Greenfield, ...	2,975	.338	13,610 56
Groton (1), ...	4,745	.539	9,812 08
Groton (2), ...	4,415	.500	8,954 76
Groveland (1), ...	6,830	.776	10,306 62
Groveland (2), ...	5,845	.664	10,614 67
Harwich, ¹	8,585	.975	5,165 15
Hatfield, ...	3,335	.388	12,448 38
Hinsdale (1), ...	3,500	.398	10,316 16
Hinsdale (2), ...	2,495	.284	8,872 55
Holbrook, ...	5,710	.649	6,943 31
Lakeville (1), ...	17,415	1.980	2,813 83
Lakeville (2), ...	14,000	1.591	3,194 81
Lancaster, ²	9,600	1.250	6,796 33
Leominster (1), ³	11,665	1.326	3,396 15
Leominster (2), ³	7,500	.852	5,430 16
Mansfield, ...	6,335	.720	5,397 21
Marion, ...	1,445	.164	4,674 57
Marlborough, ...	6,165	.701	10,705 09
Marshfield, ...	3,495	.399	7,539 33
Methuen, ...	3,905	.444	9,610 99
Millbury, ¹	6,885	.782	5,349 91
Nantucket, ⁴	5,027	.714	5,641 22
Needham, ⁵	12,838	.995	5,405 63
Newbury (1), ...	7,710	.876	6,792 32
Newbury (2), ...	5,035	.572	7,334 65
North Adams, ...	4,195	.477	8,739 39
Northborough, ...	8,330	.946	5,980 69
Northfield, ...	10,180	1.157	6,636 39
Orleans, ...	3,745	.425	3,736 40
Paxton, ...	3,125	.355	11,158 25
Pittsfield, ...	3,255	.370	12,274 43
Plymouth, ...	3,675	.418	6,678 47
Quincy, ...	4,990	.566	8,604 66
Raynham, ...	2,030	.842	8,675 50
Sandwich, ¹	2,465	.265	7,054 37

¹ Approximate; final quantities not fully determined.³ Gravel road.⁴ Macadam 12 feet in width.² Macadam 18 feet in width.⁵ Macadam 22 feet in width.

COST PER MILE OF ROAD, ETC.—*Concluded.*

TOWN OR CITY.	Square Yards.	Miles.	Cost per Mile.
Seekonk, ...	4,335	.493	\$7,457 20
Somerset, ...	8,025	.912	5,887 22
Southbridge, ^{1,2}	8,000	.910	4,604 40
Stoughton, ...	6,665	.760	5,568 46
Sudbury, ...	16,785	1.907	5,847 97
Sutton, ¹	4,035	.458	2,933 64
Taunton, ...	1,805	.205	13,033 10
Templeton (1), ...	3,335	.380	9,450 50
Templeton (2), ...	3,750	.445	9,331 66
Tewksbury (1), ...	4,835	.550	7,395 08
Tewksbury (2), ...	6,760	.751	8,478 31
Townsend, ...	3,335	.384	6,485 00
Truro, ³	6,334	1.080	2,763 80
Wareham, ¹	6,760	.768	4,596 30
West Bridgewater, ...	6,805	.773	4,383 11
Westfield, ...	7,900	.900	5,555 56
Whately (1), ³	4,335	.485	11,077 96
Whately (2), ³	4,655	.530	7,554 64
Wilbraham, ...	5,755	.656	8,163 69
Windsor, ²	3,335	.380	5,021 29
Woburn (1), ...	6,615	.754	5,909 34
Woburn (2), ...	3,110	.353	8,213 20
Wrentham, ...	3,850	.438	6,198 63
Totals, ...	516,973	58.948	—
Average cost per mile, ...			\$6,466 11

¹ Approximate; final quantities not fully determined.² Gravel road.³ Macadam 12 feet in width.

APPENDIX F.

MAINTENANCE.

Table showing the Amounts expended for Repairs and Maintenance and the Cost per Mile per Year on Each Road finished previous to 1903; also the Number of Miles of Road under Maintenance and the Amounts to be assessed upon Municipalities for Maintenance under Chapter 47 of the Revised Laws.

TOWN OR CITY.	Expended to 1902.	Expended in 1902.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1902.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Abington, . . .	\$3 27	\$61 25	\$64 52	\$39 58	\$51 73	1.184	\$59 20
Acton, . . .	77 55	282 15	359 70	44 13	68 00	4.149	207 45
Acushnet, . . .	772 07	73 34	845 41	171 13	30 97	2.368	73 34
Adams, . . .	380 12	69 95	450 07	175 12	123 15	.568	28 40
Amesbury, . . .	191 72	176 88	368 60	210 63	187 77	.942	47 10
Amherst, . . .	-	3 88	3 88	11 41	4 07	.954	3 88
Andover, . . .	757 33	468 84	1,226 17	90 16	152 91	3.066	153 30
Ashby, . . .	1,908 47	282 75	2,191 22	108 69	79 17	3.571	178 55
Ashfield, . . .	706 36	338 63	1,044 99	159 39	210 59	1.608	80 40
Athol, . . .	4,292 81	428 87	4,721 68	488 79	256 65	1.671	83 55
Attleborough, . . .	4 69	241 62	246 31	94 01	109 53	2.206	110 30
Auburn, . . .	1,217 57	238 73	1,456 30	95 62	58 93	4.051	202 55
Barnstable, . . .	500 96	222 62	723 58	98 18	69 35	3.210	160 50
Barre, . . .	84 71	136 05	220 76	38 46	83 42	1.631	81 55
Becket, . . .	-	1 13	1 13	22 60	4 07	.278	1 13
Bedford, . . .	59 54	19 06	78 60	31 44	35 04	.544	19 06
Belchertown, . . .	3 11	183 48	186 59	176 03	133 93	1.370	68 50
Bellingham, . . .	-	1 54	1 54	30 80	4 06	.379	1 54
Beverly, . . .	878 68	271 72	1,150 40	103 27	135 18	2.010	100 50
Blackstone, . . .	102 45	146 88	249 33	91 66	125 97	1.166	58 30
Bourne, . . .	340 54	41 45	381 99	67 13	29 30	1.415	41 45
Boxborough, . . .	161 45	43 14	204 59	36 93	31 65	1.363	43 14

Table showing the Amounts expended for Repairs, etc. — Continued.

TOWN OR CITY.	Expended to 1902.	Expended in 1902.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1902.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Braintree, . . .	\$2 14	\$1 87	\$4 01	\$5 81	\$4 07	.460	\$1 87
Brewster, . . .	1,274 48	654 68	1,929 16	91 04	84 08	7.786	389 30
Brimfield, . . .	452 51	121 88	574 39	64 39	30 73	3.967	121 88
Brockton, . . .	354 11	212 08	566 19	70 60	84 02	2.524	126 20
Brookfield, . . .	370 28	56 31	426 59	91 54	40 42	1.393	56 31
Buckland, . . .	955 35	676 68	1,632 03	101 11	193 45	3.498	174 90
Charlemont, . . .	534 87	398 78	933 65	285 52	518 57	.769	38 45
Charlton, . . .	-	4 46	4 46	15 93	4 07	1.098	4 46
Chatham, . . .	189 30	119 45	308 75	144 95	70 35	1.698	84 90
Chelmsford, . . .	279 14	168 25	447 39	111 29	117 00	1.438	71 90
Cheshire, . . .	156 23	214 86	371 09	103 08	114 59	1.875	93 75
Chester, . . .	345 21	122 45	467 66	229 24	79 20	1.546	77 30
Chicopee, . . .	1,343 45	1,306 43	2,649 88	654 29	1,423 12	.918	45 90
Cohasset, . . .	143 38	62 46	205 84	41 25	29 71	2.102	62 46
Colrain, . . .	309 44	190 20	499 64	127 78	103 93	1.830	91 50
Concord, . . .	253 88	211 20	465 08	64 24	106 18	1.989	99.45
Cottage City, . . .	3,156 95	170 67	3,327 62	212 36	72 01	2.370	118 50
Dalton, . . .	2,669 65	324 34	2,993 99	319 87	207 38	1.564	78 20
Dartmouth, . . .	286 13	54 20	340 33	52 68	20 19	2.684	54 20
Deerfield, . . .	1,166 98	394 59	1,561 57	148 86	137 11	2.878	143 90
Dennis, . . .	1,733 04	465 85	2,198 89	90 30	74 86	6.223	311 15
Dighton, . . .	-	31 28	31 28	625 60	52 66	.594	29 70
Duxbury, . . .	626 89	149 49	776 38	69 69	72 74	2.055	102 75
Easthampton, . . .	517 12	357 78	874 90	86 03	150 14	2.383	119 15
Easton, . . .	10 62	30 24	40 86	26 02	37 75	.801	30 24
Edgartown, . . .	189 77	94 21	283 98	76 34	61 25	1.538	76 90
Erving, . . .	206 64	290 46	497 10	95 23	142 10	2.044	102 20
Fairhaven, . . .	428 85	45 81	474 66	45 64	31 62	1.449	45 81
Fitchburg, . . .	533 43	1,848 40	2,381 83	223 65	697 77	2.649	132 45
Foxborough, . . .	-	3 97	3 97	7 48	4 06	.977	3 97
Gardner, . . .	760 14	385 41	1,145 55	99 70	114 84	3.356	167 80
Gloucester, . . .	1,121 44	111 33	1,232 77	90 77	44 82	2.484	111 33
Goshen, . . .	1,592 97	433 14	2,026 11	155 61	227 13	1.907	95 35
Grafton, . . .	384 94	36 55	421 49	75 53	23 54	1.553	36 55

Table showing the Amounts expended for Repairs, etc. — Continued.

TOWN OR CITY.	Expended to 1902.	Expended in 1902.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1902.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Granby, . . .	\$658 90	\$83 69	\$742 59	\$160 39	\$81 09	1.032	\$51 60
Great Barrington, .	3,402 76	697 11	4,099 87	253 86	250 31	2.785	139 25
Greenfield, . .	81 58	154 17	235 75	99 05	156 04	.988	49 40
Groton, . . .	-	5 60	5 60	25 45	4 07	1.381	5 60
Groveland, . .	-	30 02	30 02	88 29	20 85	1.440	30 02
Hadley, . . .	2,463 53	404 58	2,868 11	205 60	148 42	2.726	136 30
Hamilton, . . .	91 47	209 98	301 45	83 92	145 72	1.441	72 05
Hancock, . . .	3,022 92	781 61	3,804 53	262 02	241 83	3.232	161 60
Hardwick, . . .	139 64	46 91	186 55	81 11	57 28	.819	40 95
Harvard, . . .	3 28	23 94	32 22	34 64	41 22	.702	28 94
Harwich, . . .	227 99	306 73	534 72	94 76	121 33	2.523	126 40
Hatfield, . . .	-	7 59	7 59	37 95	19 56	.388	7 59
Haverhill, . . .	18 53	5,745 87	5,764 40	949 65	2,767 76	2.076	103 80
Hingham, . . .	774 32	143 68	918 00	55 43	54 05	2.658	132 90
Hinsdale, . . .	-	2 76	2 76	10 61	4 07	.681	2 76
Holbrook, . . .	332 99	52 76	385 75	56 39	48 40	1.090	52 76
Holden, . . .	1,030 67	189 33	1,220 00	59 40	50 34	3.761	188 05
Huntington, . .	1,566 06	138 06	1,704 12	290 80	136 02	1.015	50 75
Lakeville, . . .	-	8 04	8 04	9 80	4 07	1.979	8 04
Lancaster, . . .	-	5 07	5 07	24 14	4 07	1.249	5 07
Lawrence, . . .	1,271 03	30 23	1,301 26	903 65	113 22	.267	13 35
Lee, . . .	1,674 31	3,626 15	5,300 46	35 36	1,118 15	3.243	162 15
Leicester, . . .	9,239 67	3,175 04	12,414 71	536 04	655 20	4.846	242 30
Lenox, . . .	846 02	402 24	1,248 26	331 98	176 34	2.281	114 05
Leominster, . .	-	10 24	10 24	18 62	4 70	2.178	10 24
Lexington, . . .	650 06	280 24	930 30	47 68	65 31	4.291	214 55
Lincoln, . . .	462 24	158 26	620 50	51 54	76 86	2.059	102 95
Lowell (north), .	250 49	55 09	305 58	58 84	1,910 07	2.303	115 15
Lowell (south), .	1,787 59	4,343 82	6,131 41				
Lunenburg, . .	323 04	435 30	808 34	165 64	262 46	1.849	92 45
Mansfield, . . .	-	17 92	17 92	42 67	24 88	.720	17 92
Marion, . . .	473 24	180 27	653 51	41 10	52 49	3.434	171 70
Marlborough, . .	301 90	62 40	364 30	50 74	22 20	2.811	62 40
Marshfield, . .	397 98	97 00	494 98	49 85	40 50	2.395	97 00

Table showing the Amounts expended for Repairs, etc. — Continued.

TOWN OR CITY.	Expended to 1902.	Expended in 1902.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1902.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Mattapoissett, . . .	\$426 96	\$100 01	\$526 97	\$49 81	\$39 31	2.544	\$100 01
Merrimac, . . .	273 88	162 07	435 95	93 15	103 89	1.560	78 00
Methuen, . . .	393 08	265 77	658 85	91 51	101 17	2.627	131 35
Middleborough, . .	556 30	56 63	612 93	37 12	20 67	2.740	56 63
Millbury, . . .	-	8 74	8 74	18 21	23 06	.379	8 74
Milton, . . .	1,231 45	251 91	1,483 36	904 49	289 22	.871	43 55
Monson, . . .	635 62	53 83	689 45	105 42	52 06	1.034	51 70
Montague, . . .	258 39	246 16	504 55	86 99	150 83	1.632	81 60
Nantucket, . . .	1,924 82	286 05	2,210 87	77 06	48 64	5.881	286 05
Natick, . . .	-	35 95	35 95	27 03	31 67	1.135	35 95
New Braintree, . .	25 40	4 34	29 74	40 19	24 94	.174	4 34
Newbury, . . .	48 16	79 83	127 99	45 87	29 90	2.670	79 83
Newburyport, . .	608 02	176 98	785 00	105 79	100 90	1.754	87 70
Newton, . . .	-	4 19	4 19	3 49	4 07	1.032	4 19
Norfolk, . . .	326 80	60 55	387 35	44 52	41 64	1.454	60 55
North Adams, . .	1,510 62	1,083 11	2,593 73	211 73	341 14	3.175	158 75
North Andover, . .	90 21	130 87	221 08	139 92	165 44	.791	39 55
Northampton, . .	521 99	264 62	786 61	95 46	157 23	1.683	84 15
North Attleborough,	1,388 73	387 35	1,776 11	85 18	107 70	3.597	179 85
Northborough, . .	231 87	63 80	295 67	38 90	20 25	3.150	63 80
North Reading, . .	72 23	93 19	165 42	34 11	52 92	1.761	93 19
Norwood, . . .	572 28	108 46	680 74	65 27	52 90	2.050	102 50
Orange, . . .	1,274 70	299 11	1,573 81	117 71	99 44	3.003	150 40
Orleans, . . .	32 59	66 04	98 63	58 71	52 87	1 249	62 45
Palmer, . . .	143 55	153 03	296 58	56 06	60 92	2.512	125 60
Paxton, . . .	1,768 49	2,779 53	4,548 02	224 48	772 74	3.597	179 85
Phillipston, . . .	336 45	112 24	448 69	97 97	94 08	1.193	59 65
Pittsfield, . . .	2,382 63	288 36	2,670 99	194 96	107 68	2.678	133 90
Plymouth, . . .	2,543 71	380 30	2,924 01	133 33	89 46	4.251	212 55
Princeton, . . .	178 39	25 06	203 45	64 38	25 19	.995	25 06
Provincetown, . .	1 01	46 74	47 75	159 17	214 40	.218	10 90
Quincy, . . .	24 87	2 01	26 88	23 58	4 07	.494	2 01
Raynham, . . .	-	14 92	14 92	42 63	17 72	.842	14 92
Reading, . . .	159 61	158 85	318 49	131 61	148 48	1.070	53 50

Table showing the Amounts expended for Repairs, etc. — Continued.

TOWN OR CITY.	Expended to 1902.	Expended in 1902.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1902.	Length under Main-tenance (Miles).	Amount to be as-essed on Cities or Towns.
Rehoboth, . . .	\$504 20	\$126 60	\$630 80	\$63 21	\$66 84	1.894	\$94 70
Revere (east), . .	415 14	110 75	525 89	215 53	} 379 72	1.008	50 40
Revere (west), . .	981 87	272 01	1,253 88	750 83			
Richmond, . . .	706 68	93 58	800 26	144 97	68 71	1.362	68 10
Russell, . . .	3,894 10	559 74	4,453 84	134 03	84 11	6.655	332 75
Salem, . . .	-	53	53	3 31	4 02	.132	53
Sandwich, . . .	965 76	176 20	1,141 96	124 53	68 91	2.557	127 85
Saugus, . . .	624 59	566 99	1,191 58	297 89	334 59	1.599	79 95
Scituate, . . .	637 74	101 32	739 07	93 67	57 31	1.768	88 40
Seekonk, . . .	2 65	35 96	38 61	27 38	63 31	.568	28 40
Shelburne, . . .	964 32	681 58	1,645 88	121 65	315 68	2.159	107 95
Shrewsbury, . . .	923 12	4,022 93	4,946 05	276 01	1,032 84	3.895	194 75
Somerset, . . .	563 83	158 49	722 32	45 17	35 16	4.508	158 49
South Hadley, . .	1,464 04	636 94	2,100 98	216 82	263 31	2.419	120 95
Spencer, . . .	78 58	45 39	123 97	46 43	28 37	1.600	45 39
Sterling, . . .	383 00	85 74	468 74	88 61	66 21	1.295	64 75
Stoneham, . . .	323 67	94 54	418 21	102 50	59 76	1.582	79 10
Stoughton, . . .	-	16 96	16 96	67 84	22 40	.757	16 96
Sturbridge, . . .	163 58	56 68	220 26	84 39	96 72	.586	29 30
Sudbury, . . .	128 95	206 96	335 91	49 32	42 32	4.890	206 96
Sunderland, . . .	21 41	77	22 18	28 43	4 07	.188	77
Sutton, . . .	72 00	33 65	105 65	42 09	33 65	1.000	33 65
Swampscott, . . .	472 56	342 67	815 23	167 40	229 98	1.490	74 50
Taunton, . . .	929 99	183 93	1,113 92	97 80	62 71	2.933	146 65
Templeton, . . .	118 44	104 00	222 44	103 46	72 73	1.430	71 50
Tewksbury, . . .	26 12	83 73	109 85	69 52	74 96	1.117	55 85
Tisbury, . . .	947 11	106 36	1,053 47	74 45	55 08	1.931	96 55
Townsend, . . .	403 07	191 98	595 05	57 71	57 31	3.350	167 50
Truro, . . .	528 30	126 80	655 10	74 87	53 66	2.363	118 15
Tyngsborough, . .	1,018 55	90 71	1,109 26	69 41	30 83	2.942	90 71
Uxbridge, . . .	275 24	145 09	420 33	76 98	82 40	1.761	88 05
Walpole, . . .	1,146 41	306 10	1,452 51	67 65	67 48	4.536	226 80
Ware, . . .	288 05	104 54	392 59	76 23	58 07	1.799	89 95
Wareham, . . .	235 87	113 17	349 04	42 88	44 64	2.535	113 17

Table showing the Amounts expended for Repairs, etc.—Concluded.

TOWN OR CITY.	Expended to 1902.	Expended in 1902.	Total.	Total Cost per Mile per Year.	Expended per Mile in 1902.	Length under Maintenance (Miles).	Amount to be assessed on Cities or Towns.
Warren, . . .	\$715 18	\$298 07	\$1,013 25	\$88 11	\$90 33	3.300	\$165 00
Watertown, . .	967 22	205 24	1,172 46	223 73	241 75	.849	42 45
Wayland, . . .	254 23	96 79	351 02	57 73	42 60	2.272	96 79
Wellesley, . . .	-	26 89	26 89	19 48	22 87	1.176	26 89
Wenham, . . .	206 30	40 84	247 14	69 03	36 59	1.116	40 84
Westborough, . .	146 92	13 16	160 08	49 87	18 43	.714	13 16
West Boylston, .	610 01	22 81	632 82	100 45	14 68	1.553	22 81
West Bridgewater, .	4 64	88 35	92 99	48 68	32 24	2.740	88 35
West Brookfield, .	37 15	70 24	107 39	32 84	42 39	1.657	70 24
Westfield, . . .	2,424 59	508 44	2,933 03	135 35	103 61	4.907	245 35
Westminster, . .	952 68	420 41	1,372 99	89 27	140 51	2.992	149 60
West Newbury, . .	1,827 45	488 45	2,315 90	184 53	218 55	2.235	111 75
Weston, . . .	309 49	193 74	503 23	52 25	61 47	3.152	157 60
Westport, . . .	2,558 53	254 64	2,813 17	111 25	59 86	4.254	212 70
West Springfield, .	846 33	88 18	934 51	133 50	76 48	1.153	57 65
West Tisbury, . .	614 32	146 06	760 38	48 55	51 41	2.841	142 05
Westwood, . . .	148 42	186 08	334 50	136 53	177 73	1.047	52 35
Weymouth, . . .	772 66	95 89	868 55	82 56	48 02	1.997	95 89
Whately, . . .	15 91	27 52	43 43	21 18	15 26	1.803	27 52
Whitman, . . .	505 95	134 48	640 43	56 67	79 25	1.697	84 85
Wilbraham, . . .	763 28	145 48	908 76	77 34	52 09	2.793	139 65
Williamsburg, . .	444 59	334 66	779 25	108 83	158 08	2.117	105 85
Williamstown, . .	761 47	174 06	935 53	96 45	90 56	1.922	96 10
Winchester, . . .	434 97	292 73	727 70	146 12	149 96	1.952	97 60
Windsor, . . .	19 24	23 88	43 12	33 69	36 02	.663	23 88
Woburn, . . .	-	144 96	144 96	94 57	71 30	2.033	101 65
Worcester, . . .	995 44	898 32	1,893 76	171 38	351 59	2.555	127 75
Wrentham, . . .	794 86	138 51	933 37	42 12	23 48	5.898	138 51
Yarmouth (north), .	1,151 44	395 70	1,547 14	66 89	106 49	3.716	} 439 90
Yarmouth (south), .	2,096 97	304 25	2,401 22	85 67	59 87	5.082	
Totals. . .	\$127,816 83	\$59,943 29	\$187,760 12	-	-	389.348	\$17,221 39

APPENDIX G.

STATEMENT SHOWING THE NUMBER OF PETITIONS RECEIVED AND THE LENGTHS OF WAY PETITIONED FOR, THE LAY-OUTS MADE, AND THEIR LENGTH AND DISTRIBUTION, IN THE VARIOUS COUNTIES OF THE COMMONWEALTH.

COUNTIES.	PETITIONS RECEIVED.				PETITIONS SITUATED IN —			LAY-OUTS MADE IN —			Number of Lay-outs.
	County.	City.	Town.	Total.	Cities.	Towns.	Total.	Cities.	Towns.	Total.	
Barnstable, . . .	-	-	34	34	-	15	15	-	11	11	54
Berkshire, . . .	15	5	38	58	12	24	26	2	12	14	50
Bristol, . . .	12	5	29	36	2	17	19	1	14	15	50
Dukes, . . .	12	-	5	7	-	5	5	-	4	4	17
Essex, . . .	2	16	40	58	7	24	31	7	14	21	53
Franklin, . . .	1	-	46	47	-	16	16	-	13	13	48
Hampden, . . .	4	2	21	27	2	17	19	1	9	10	50
Hampshire, . . .	-	3	36	40	1	17	18	1	11	12	43
Middlesex, . . .	11	12	72	95	6	42	48	4	23	27	93
Nantucket, . . .	-	-	1	1	-	1	1	-	1	1	11
Norfolk, . . .	-	3	33	36	1	23	24	1	16	17	54
Plymouth, . . .	-	4	41	45	1	24	25	1	14	15	65
Suffolk, . . .	-	1	6	7	1	2	3	1	1	2	5
Worcester, . . .	-	7	105	112	2	54	56	2	36	38	139
Totals, . . .	38	58	507	603	25	281	306	21	179	200	732

NUMBER OF PETITIONS RECEIVED, ETC.— *Concluded.*

COUNTIES.	LENGTHS PETITIONED FOR.		LENGTHS LAID OUT.					
			1894-1901.		1902.		TOTAL.	
	Feet.	Miles.	Feet.	Miles.	Feet.	Miles.	Feet.	Miles.
Barnstable, . . .	594,911	112.67	195,132	36.96	18,506	3.51	213,638	40.46
Berkshire, . . .	607,015	114.97	132,637	25.12	18,784	3.56	151,421	28.68
Bristol, . . .	591,834	112.09	152,374	28.86	15,770	2.93	168,144	31.85
Dukes, . . .	121,043	22.92	45,851	8.68	2,737	.52	48,588	9.20
Essex, . . .	818,930	155.10	152,643	28.91	18,899	3.58	171,542	32.49
Franklin, . . .	527,773	99.96	115,952	21.96	10,219	1.94	126,171	23.90
Hampden, . . .	513,833	97.32	137,694	26.08	12,681	2.40	150,375	28.48
Hampshire, . . .	415,308	78.66	103,089	19.52	3,035	.53	106,124	20.10
Middlesex, . . .	1,312,985	248.67	276,206	52.31	56,785	10.76	332,991	63.07
Nantucket, . . .	34,185	6.47	31,060	5.88	-	-	31,060	5.88
Norfolk, . . .	461,725	87.45	128,613	24.36	28,073	5.32	156,686	29.67
Plymouth, . . .	791,146	149.84	175,252	33.19	32,992	6.25	208,244	39.44
Suffolk, . . .	56,375	10.68	9,633	1.83	-	-	9,633	1.83
Worcester, . . .	1,422,389	269.39	337,507	63.92	63,017	11.94	400,524	75.86
Totals, . . .	8,269,452	1,566.19	1,993,643	377.58	281,498	53.32	2,275,141	430.90

APPENDIX H.

SHOWING THE WORK DONE UNDER THE "SMALL TOWN" ACT SINCE ITS PASSAGE IN 1900.

TOWNS.	Allotments ¹	Lengths built (Feet).	Types of Roads.
<i>Barnstable County.</i>			
Eastham, ...	\$196 00	1,150	Graded only.
Wellfleet, ...	705 00	2,250	Broken stone and clay.
Wellfleet, ...	948 00		
	\$1,849 00	3,400	
<i>Berkshire County.</i>			
Alford, ...	\$168 00	1,522	Gravel.
Alford, ...	165 00		
Egremont, ...	300 00	2,000	Gravel.
Egremont, ...	540 00		
Florida, ...	400 00	800	Graded only.
Florida, ...	400 00	- ²	-
Lanesborough, ...	450 00	1,800	Gravel.
Monterey, ...	300 00	2,500	Gravel.
Monterey, ...	320 00	2,000	Gravel.
Mount Washington, ...	171 00	-	Bridge repairs.
Mount Washington, ...	171 00	-	Bridge repairs.
New Ashford, ...	100 00	-	Culvert repairs.
New Ashford, ...	105 00	1,100	Gravel.
New Marlborough, ...	1,100 00	5,600	Gravel.
New Marlborough, ...	1,148 00	4,100	Gravel.
Otis, ...	400 00	2,100	Gravel.
Otis, ...	416 00	700	Grading and bridge repairs.
Peru, ...	255 00	1,565	Gravel.
Peru, ...	264 00	- ³	Gravel.
Sandisfield, ...	600 00	2,640	Macadam.
Sandisfield, ...	640 00		

¹ In many instances the towns appropriated sums in addition to the allotments of the commission, thus making it possible to improve a greater length of road. The lengths shown in the next column represent the total length improved with all the money available.

² Work not yet begun.

³ Work begun but not completed.

WORK DONE UNDER THE "SMALL TOWN" ACT — *Continued.*

TOWNS.	Allotments. ¹	Lengths built (Feet).	Types of Roads.
<i>Berkshire County — Concluded.</i>			
Savoy, ...	\$580 00	1,400	Gravel.
Savoy, ...	576 00	1,400	Gravel.
Sheffield, ...	1,000 00	1,100	Gravel.
Sheffield, ...	1,024 00	3,400	Gravel.
Tyringham, ...	285 00	1,700	Graded only.
Tyringham, ...	275 00		
Washington, ...	360 00	3,000	Graded only.
Washington, ...	404 00		
West Stockbridge, ...	590 00	2,200	Gravel.
West Stockbridge, ...	500 00		
	\$14,017 00	42,627	
<i>Bristol County.</i>			
Norton, ...	\$1,100 00	2,400	Macadam.
Norton, ...	1,100 00	1,350	Macadam.
	\$2,200 00	3,750	
<i>Essex County.</i>			
Georgetown, ...	\$400 00 ²	- ³	-
Middleton, ...	400 00	1,500	Gravel.
Middleton, ...	408 00	600	Gravel.
Salisbury, ...	968 00	1,050	Macadam.
Topsfield, ...	640 00	4,850	Gravel.
Topsfield, ...	1,100 00	1,375	Gravel.
Danvers, ...	3,000 00	4,000	Gravel.
	\$6,916 00	13,375	
<i>Franklin County.</i>			
Bernardston, ...	\$265 00	1,600	Gravel.
Conway, ...	1,008 00	- ³	-
Gill, ...	430 00	3,100	Gravel.
Hawley, ...	460 00	2,000	Graded only.
Heath, ...	375 00	- ⁴	Gravel.
Heath, ...	320 00	- ⁴	Gravel.
Leverett, ...	468 00	- ⁴	Gravel.
Leyden, ...	405 00	2,000	Gravel.
New Salem, ...	460 00	- ³	-

¹ See note on page 75.² The town appropriated an equal amount.³ Work not yet begun.⁴ Work begun but not completed.

WORK DONE UNDER THE "SMALL TOWN" ACT — *Continued.*

TOWNS.	Allotments. ¹	Lengths built (Feet).	Types of Roads.
<i>Franklin County — Concluded.</i>			
New Salem, ...	\$464 00	- ²	- -
Rowe, ...	415 00	1,800	Graded only.
Shutesbury, ...	262 00	- ²	- -
Wendell, ...	528 00	1,200	Graded only.
Wendell, ...	696 00	- ³	Graded only.
	\$6,556 00	11,700	
<i>Hampden County.</i>			
Blandford, ...	\$900 00	1,800	Graded only.
Blandford, ...	900 00	3,000	Graded only.
East Longmeadow, ...	680 00	2,850	Gravel.
Granville, ...	800 00	4,000	Gravel.
Hampden, ...	340 00	5,937	Gravel.
Montgomery, ...	200 00	- ³	Gravel.
Montgomery, ...	200 00	- ³	Gravel.
Tolland, ...	355 00	800	Graded only.
Tolland, ...	393 00	- ³	Graded only.
	\$4,768 00	18,387	
<i>Hampshire County.</i>			
Chesterfield, ...	\$520 00	750	Gravel.
Chesterfield, ...	500 00		
Cummington, ...	512 00	3,200	Gravel.
Cummington, ...	492 00		
Middlefield, ...	400 00	1,800	Gravel.
Middlefield, ...	400 00	- ²	- -
Pelham, ...	380 00	- ³	Gravel.
Pelham, ...	392 00	- ³	Gravel.
Plainfield, ...	300 00	1,200	Gravel.
Plainfield, ...	320 00		
Prescott, ...	300 00	600	Graded only.
Prescott, ...	336 00	500	Gravel.
Westhampton, ...	375 00	1,300	Gravel.
Westhampton, ...	392 00		
Worthington, ...	645 00	2,400	Gravel.
Worthington, ...	640 00		
	\$6,904 00	11,750	

¹ See note on page 75.² Work not yet begun.³ Work begun but not completed.

WORK DONE UNDER THE "SMALL TOWN" ACT — *Continued.*

TOWNS.	Allotments, ¹	Lengths built (Feet).	Types of Roads.
<i>Middlesex County.</i>			
Billerica, ...	\$2,240 00 ²	- ³	Macadam.
Dunstable, ...	325 00	2,100	Gravel.
Hudson, ...	3,000 00	10,857	Graded only.
Maynard, ...	1,144 00	2,100	Grading and bridge repairs.
Maynard, ...	1,000 00 ²	2,150	Macadam.
Shirley, ...	526 00	- ⁴	- -
Stow, ...	448 00	3,900	Gravel.
Stow, ...	585 00		
Westford, ...	1,400 00	3,100	Gravel.
Westford, ...	966 30 ²	2,300	Gravel.
	\$11,634 30	26,507	
<i>Norfolk County.</i>			
Avon, ...	\$460 00	2,640	Gravel.
Avon, ...	443 00	2,640	Gravel.
Bellingham, ...	700 00	1,700	Macadam.
Bellingham, ...	712 00	1,050	Macadam.
Medway, ...	980 00 ²	2,800	Macadam.
	\$3,295 00	10,830	
<i>Plymouth County.</i>			
Carver, ...	\$800 00	2,605	Macadam.
Carver, ...	896 00	- ³	- - 896
East Bridgewater, ...	1,200 00 ²	5,000	Gravel. 700.
Halifax, ...	300 00	2,460	Macadam.
Halifax, ...	358 00		
Hanson, ...	1,200 00	1,354	Macadam.
Hanson, ...	1,100 00	- ⁴	- - 1100
Lakeville, ...	700 00	2,640	Macadam.
Pembroke, ...	864 00	7,300	Gravel.
Pembroke, ...	884 00	5,800	Gravel. 1100
Plympton, ...	350 00	1,850	Gravel.
Plympton, ...	360 00	2,214	Gravel. 360
Rochester, ...	1,500 00	7,920	Macadam.
Rochester, ...	1,500 00	7,920	Macadam. 1500
	\$12,012 00	47,063	

¹ See note on page 75.² The town appropriated an equal amount.³ Work begun but not completed.⁴ Work not yet begun.

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WORK DONE UNDER THE "SMALL TOWN" ACT — *Concluded.*

TOWNS.	Allotments. ¹	Lengths built (Feet).	Types of Roads.
<i>Worcester County.</i>			
Ashburnham, ...	\$1,004 00	1,160	Gravel.
Berlin, ...	648 00	1,475	Gravel.
Bolton, ...	500 00	3,900	Gravel.
Bolton, ...	550 00	1,600	Gravel.
Dana, ...	400 00	-2	Gravel.
Dana, ...	369 00	-2	Gravel.
Mendon, ...	660 00	3,500	Gravel.
Oakham, ...	440 00	1,300	Gravel.
Oakham, ...	356 00	2,000	Gravel.
Petersham, ...	960 00	-3	-
Rutland, ...	540 00	1,131	Gravel.
Rutland, ...	608 00		
	\$7,135 00	16,066	

¹ See note on page 75.² Work begun but not completed.³ Work not yet begun.

SUMMARY.

COUNTIES.	Allotments.	Lengths built (Feet).
Barnstable, ...	\$1,849 00	3,400
Berkshire, ...	14,017 00	42,627
Bristol, ...	2,200 00	3,750
Essex, ...	6,916 00	13,375
Franklin, ...	6,556 00	11,700
Hampden, ...	4,768 00	18,387
Hampshire, ...	6,904 00	11,750
Middlesex, ...	11,634 30	26,507
Norfolk, ...	3,295 00	10,830
Plymouth, ...	12,012 00	47,063
Worcester, ...	7,135 00	16,066
Totals, ...	\$77,286 30	205,455

34,000

APPENDIX I.

APPROPRIATIONS.

Appropriations for the Construction and Repair of State Highways.

1894, chapter 497, section 8, ...	\$300,000 00
1895, chapter 347, section 3, ...	400,000 00
1896, chapter 481, section 3, ...	600,000 00
1897, chapter 340, section 1, ...	800,000 00
1898, chapter 539, section 1, ...	400,000 00
1899, chapter 396, section 1, ...	500,000 00
1900, chapter 442, section 1, ...	500,000 00
1901, chapter 269, section 1, ...	500,000 00
1902, chapter 246, section 1, ...	500,000 00
Total, ...	\$4,500,000 00

Appropriations for the Salaries and Expenses of the Commission, paid from the Treasury of the Commonwealth.

1898, ¹ chapter 579, section 1, ...	\$14,300 00 ²
1899, chapter 367, section 1, ...	28,500 00
1900, chapter 141, section 1, ...	28,500 00
1901, chapter 451, section 1, ...	33,750 00
1902, chapter 67, section 1, ...	33,750 00

¹ Previous to 1898 the salaries and expenses of the commission were paid out of the State highway loan fund.

² This appropriation bill was approved June 23, 1898, and the amount named was for the remainder of the year.

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